

and the following alterations occur. First, there is a slight depression of the skin, which becomes more and more prominent, until it becomes a deep furrow, or sillon, which occupies the entire width of the lip. This furrow is surrounded by a raised border, which is covered with a yellowish, crusty, exudate.

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ORIGINAL DEPARTMENT.

LECTURE.

HEREDITARY SYPHILIS AND RACHITIS.
THE CICATRICES.DELIVERED AT THE HOSPICE DES ENFANTS-ASSISTÉS.
By M. PARROT, Professor of Children's Diseases in the
Paris Faculty.

GENTLEMEN—In our first reunion I discussed syphilis as it appears in its state of activity, as an actual living entity; to-day I propose to speak of syphilis which has ceased to be active, which is, as it were, dead, and can only be recognized by the imprints it has left behind it. These marks are sometimes difficult to discover, and in the great proportion of cases remain ignored; but when they are seen the existence of syphilis may be affirmed.

In this study of extinguished syphilis, it is necessary to proceed like the paleontologist, who, in order to reconstitute a long forgotten species, extends his researches into the various strata of the earth's surface, collects, brings together and compares the diverse fragments he meets with, and thus forming a skeleton, is enabled from this fundamental notion to form a distinct idea of the entire animal, its appearance, habits and the conditions under which it lived.

In the same way, in order to trace in the human organism the signs of former disease, it is necessary to examine the surface and seek in its depths those signs, which will enable us to arrive at the malady from which it formerly suffered.

These imprints exist on the skin, the teeth and the bones. To-day we will study those observed on the external integument.

The lips of little infants but a few weeks old, born syphilitic, are frequently covered with erosions, from which exudes a very virulent liquid, which forms yellow crusts. This alteration is ordinarily too superficial to leave any trace. Such is not the case for the lesions which supervene after the third month. Frequently at this period fissures appear, oftenest on the upper lip, which may reach a depth of one or two millimeters. They appear on each side of the lobe (lobule) on the upper lip, and on the inferior, near the median line.

They are frequently observed also at the commissures. In this last situation the loss of substance is much more extensive, and the ulceration seems hollowed out of a sort of vegetation of the integuments.

These vegetations have never been, at least to my knowledge, a source of infection for nurses when the children were more than six months old, or when the bones already presented the spongoid alteration; but the children themselves have indelible cicatrices, which are more marked when the fissure was deep and of long duration. These cicatrices are white, occupy the entire thickness of the lip, and may be even a millimeter or more in width. At the commissures they are spread over the surrounding skin, forming a whitish spot with a regularly rounded periphery. Hereditary syphilis alone is capable of producing the ulcerations of which I speak and the cicatrices which succeed to them. There is one circumstance which may embarrass the observer; it is when there exists but one fissure, which occupies the median furrow (sillon) of the inferior lip. In effect, a deep and long lasting ulceration is sometimes observed at this point, in

cold weather, which leaves a cicatrical mark that cannot be distinguished from those of syphilitic origin, but this cicatrix (*à frigore*) is unique, and is never observed at other points of the lips.

The cutaneous part of the inferior lip and the chin sometimes become affected at the same time with the lips, and fissures are developed, which, during the acute periods are marked by scabs (*croûtes*). These give rise to numerous linear cicatrices, which sometimes cross each other at different angles, and sometimes take the form of a fan, of which the periphery or arch is turned toward the lip and the apex toward the chin. These remains of hereditary syphilis have a very characteristic aspect, and there can be no hesitation as to their origin.

2. The subcutaneous cellular tissue and the deeper layers of the skin are often the seat of syphilitic production, and though these are by no means rare, they have been mentioned and studied by very few authors, who have generally confounded them with other affections.

M. Lancereaux says that they have been observed by Putegnat and Bassereau. M. Julien, in a recent work, devotes but a few lines to their consideration. As regards the imprints which such lesions leave on the skin, no one has spoken. Generally they pass unperceived during the first period of their evolution, precisely on account of the region whence they spring. These subcutaneous lesions are at first small, hard, indolent masses, as large as a hemp-seed or a cherry. Although at first they may be mobile under the skin, they soon become adherent and engage the deeper layers of the skin in the morbid process. They then become prominent, and if the tumor is compressed between the fingers, a whitish yellow spot appears in the centre, through which, by transparency, its softened contents are seen.

If, as happens almost always, the evolution of the lesion is not troubled by any traumatism or therapeutic intervention, a small circular opening is formed on some part of the abscess, an opening often not more than a millimeter in width, through which its contents escape; in other cases this evacuation takes place through a narrow opening (*fente*) leaving a cavity which becomes very rapidly filled up, and finally there remains no further traces of this morbid process, except a small cicatrix, which is indelible and of a very characteristic form.

These cicatrices are not met with on all parts of the body. I have never observed any on the face or the upper limbs. Their seat of predilection is the skin of the gluteal region, of the thighs and limbs, on the outer posterior surface. They

are not generally numerous, and are sometimes widely separated. It is rare to meet with more than two or three grouped on the same point.

They always have the form of a white line or point at the centre of a depression, which is more evident if the cicatrix is of recent formation. Below this is an induration, which disappears very slowly. After the fourth or fifth year, these cicatrices, which little by little tend to disappear, have very small dimensions; nevertheless they continue to have an aspect and topography peculiar to themselves, rendering them one of the most certain signs of hereditary syphilis.

The tunnel-like depression (*dépression en entonnoir*), of the cicatrical period is easily explained by the situation of the tumors; and by this fact, that after their rapid evacuation they are replaced by a cavern having a very thin cutaneous parietes, which soon becomes depressed on the deeper parts, and finally is joined by reparative adherences with them.

The cicatrical depression thus formed, at first very marked, is little by little effaced; as are all morbid marks in children under the influence of the physiological evolution.

Subcutaneous gummata are most frequently observed during the last two-thirds of the first year of the child's existence; after this age they are rarely observed. They are not generally developed at one time, but occur successively.

They have not all the same evolution; some remain hard for a long time, others, on the contrary, become soft very rapidly. If surgical intervention seems necessary, although the natural course of the affection demonstrates that it is not indispensable, a small puncture with a lancet may be made in the white spot of which I have spoken.

The syphilitic cicatrices of which I have spoken being limited to certain special points, have, on account of their localization alone, an appearance peculiar to them, and which serves to distinguish them from those I am now about to describe.

Much more frequently observed, but not the less typical, these cicatrices should be sought for with the greatest care, for of all the marks left by hereditary syphilis, they are the most common, and on that account the most interesting as regards diagnosis.

The cutaneous syphillides which oftenest give rise to these cicatrices are those in patches, that is, the papular form, and the ectymatos or pustular form. The first, as you are aware, is composed of prominent, discoid patches, from a few millimeters to one centimeter and one

half in width, of a cherry red or copper color, sometimes purple or yellowish, almost always covered with small furfuraceous scales or a parchment-like crust; they are oftener isolated, but may be grouped into large and irregular patches. Their course is slow, sometimes they disappear to reappear later.

It is not rare to observe them ulcerated on regions subject to the contact of irritating liquids, etc., as on the glutinous region, the posterior surface of the thighs, and the scrotum.

They may attack diverse points of the external integument, but have a veritable predilection for the postero-inferior region of the body, and particularly for the glutinous regions and the adjacent parts.

Ecthymatous syphilides are much less frequent than the preceding form, and are very rarely observed in the points I have just indicated. It is rather on the inferior regions of the body, and particularly on the belly, that they are seen.

The marks left by these eruptions are indelible; their form, and particularly their situation, are valuable in forming a diagnosis. They are circular and of regular contour; sometimes slightly raised above the skin which surrounds them, but much more frequently they are marked by a depression, of variable depth; these differences are partly due to the period of time which has elapsed since their formation, and again, to other causes which escape our means of research. It is very rare that they are more than half a millimeter in depth; the surface is smooth, sometimes slightly unequal, with very small capsules. The color is of great importance and varies with the age of the cicatrix. In the greater number of cases, in the beginning, the cicatrix is of a uniform violet red tint, but soon three different zones of coloration can be distinguished, which are arranged as follows: At the centre is a disk which tends daily to become more markedly white; around this is a purple zone, and finally at the periphery is a second brownish red zone, not at all as clearly limited as the preceding. Little by little, the red or purple coloration, which was most prominent at the commencement, becomes effaced; on the contrary the central part, which corresponds to the true cicatrix, becomes more white, and the pigment which surrounds it darker. This last zone, very large and apparent in brown-skinned individuals, is, on the contrary, hardly visible in those who have the skin very white and clear. It remains for a long time, but finally disappears; and it is rare that any trace of it can be found in subjects after the sixth year. As age advances, through the modi-

cations in the parts about the cicatrices, the depression and coloration tend constantly to disappear, and although in some cases it is possible to distinguish them during adolescence and adult age, they have almost disappeared, and much attention and a very good light is required to perceive them. In some cases, I have not been able to find them without the aid of a magnifying glass. With it, may be distinguished, here and there, little rounded patches, slightly furfuraceous, wrinkled, and pale.

It is customary to meet with cicatrices which differ very much as to width, depth and coloration, not only on different subjects, but even on one and the same individual. Some are hardly a millimeter in width, others are more than a centimeter and a half. Some with a marked purplish coloration are found beside others already very white. The pigmented zone is now always found at the periphery, and finally, as I have said already, the depression of the skin varies greatly.

I will add, that these varieties are frequently conjoined with syphilides in a state of activity; and in such case the entire pathological process is observed at one and the same time.

The topography of these cicatrices is of capital importance, and we cannot accord too much attention to it, for very often the diagnostic value of the cicatrix depends on the place it occupies. As it succeeds, ordinarily, to the syphilitide in patches, it should necessarily be found in the regions where this form of syphilide is most frequent. And in effect, these cicatrices are found disseminated on the inferior part of the body, and behind, that is, on the sacral region and on the skin covering the coccyx, also on the glutinous region and the posterior surface of the thighs and legs. Sometimes they are disseminated over all these points in the same subject; in other cases they are limited to one point. The glutinous region is their seat of predilection, and it is here that they are most depressed. The postero-inferior region of the thorax, and abdomen, below the umbilicus, is often the seat of large and deep cicatrices, isolated or grouped together. Although more rarely observed than those we have already studied, their significance is none the less certain. They succeed to the pustular syphilides, which resemble somewhat ecthyma or pemphigus.

There are certain eruptive diseases which leave traces of their passage in cicatrices which last a considerable length of time, and which present a sufficiently marked resemblance to the imprints left by cutaneous syphilides. I will

indicate to you those which might give rise to error of diagnosis.

The variolic eruptions are of this number. The cicatrices which they produce are sometimes disseminated over the entire cutaneous surface, but are particularly frequent on the face. This situation, as also their uniformity and regularity, distinguish them from those due to syphilis. I have noticed these points of difference in six children of the same family. Four of the children have had the varioloid, and present the cicatrices left by this eruption; they are very regular, clearly limited, of equal diameter, scattered over the entire surface of the body. Five of these children had traces of extinguished hereditary syphilis, which, in two of the children, had left on the skin of the gluteal region and the adjacent parts numerous cicatrices, much nearer together, and less uniform in their diameter, color, and duration (age) than those due to the eruptive fever, and consequently easily distinguishable from them.

Varicella often leaves traces, but much more frequently on the face than on the other parts of the body, and particularly the gluteal regions. Again, the diameter of these depressions is very small, and no matter at what period they are observed they have no external pigmented zone.

Impetigo affects the head, and after complete cure the part affected cannot be distinguished. The diverse eruptions of scabies may affect the different parts of the body, but the limbs and extremities are most attacked, and the eruption disappears without leaving any marks.

Simple pemphigus, so frequent in young children, is generally observed at the upper part of the body, and not on those parts where syphilides are common; it disappears rapidly without leaving any trace. Tuberculous gum-mata are generally found on the limbs, and leave after them deep and profound ulcerations, and the cicatrices, irregular and traversed by bands (gaufrées), adhere to the subjacent parts.

The marks left by burns are always easy to recognize. They are large, of very irregular contours, of a pearly blue color (*d'un bleu nacrée*) often covered with bands of cicatrical tissue, and without any special localization. I have often observed them in the vicinity of syphilitic cicatrices, and I have never found the least difficulty in distinguishing them.

The marks left by croton oil are punctated and much more uniform than those of syphilis; they are grouped on the abdomen, and much more frequently on the thorax, differing widely from the usual situation of syphilitic cicatrices.

4. The cutaneous cicatrices provoked by hereditary syphilis follow one identical mode of development, no matter what may be the affection which has given rise to them. The differences which they present are due solely to the intensity, or if I may thus express myself, to the quantity of the primitive lesion; the situation is the same, whether the initial lesion be a raised patch, an ulceration, or a pustule. In effect, the microscopic examination of detached sections demonstrates that in all cases there is deposited in the derm, around the papillary vessels, and even around those more deeply situated, rounded corpuscles, veritable lymphoid elements, of which the number is different according to the variety of the lesion. In very small number in simple maculae, these corpuscles are excessively abundant in the raised papule.

Consecutive to this first morbid process, and under its influence, the epiderm becomes affected in its turn, the cells of the mucous body (*corps muqueux*) of Malpighi become tumefied, proliferate in the inferior layers, allow themselves to be traversed by the liquids, which, passing from the dermis to the cuticle, raise the latter, and then they undergo other modifications.

In the greater number of cases when the morbid process is not violent, the lymphoid corpuscles, finding sufficient nourishment (*trouvant à vivre*) in the situation into which they are thrown, become organized and transformed into connective tissue, which, later on, by the retraction it undergoes, determines the depression on the cutaneous surface.

In the beginning the vessels of the region become considerably developed, and on histological section they are found almost always filled with red globules, which gives the purplish tinge to the parts affected. Later, when these vessels are pressed upon by retractile tissue of new formation, they lose in calibre, and the blood finds a narrowed passage, whence the white cicatrical spots.

In cases where the lymphoid elements become accumulated in considerable quantity, they cannot live, suffer disintegration, and consecutively ulcerations of very variable depth are formed. The cicatrices in such cases are more depressed and the papillary body almost always partly or completely destroyed. As regards the brownish zone, which for a period surrounds the cicatrices, it is due to the deposit of a variable quantity of pigment in the cells of the mucous body (*corps muqueux*) situated directly outside of those already attacked by the morbid process.

COMMUNICATIONS.

INVESTIGATIONS IN RELATION TO THE CAUSE AND CHARACTER OF THE DIPHTHERITIC POISON, WITH NUMEROUS INOCULATIONS.

BY J. T. EVERETT, A.M., M.D.,
Of Sandusky, Ohio.

(Concluded from p. 201.)

CASE 15.—With a portion of the contents of tube No. 3 a rabbit was inoculated upon the dorsum of the tongue, but with no result.

CASE 16.—Inoculated another healthy adult rabbit with a portion of the same solution, with a like negative result.

These experiments convince us that the so-called diphtheritic poison is a specific entity, which under like circumstances and conditions produces like results. That the so-called antisepsics are in a marked degree true to name; and that with reference to the diphtheritic poison they rank as follows: 1st, chlorine; 2d, potass. perman.; 3d, acid. carbolic. These cases have been retained and reported, not for the histologic truths evolved, but for the purpose of showing the different potencies of the antisepsics used. Since these studies were pursued with a low-powered lens that aspect of the report has been omitted. The following investigations were made with a more powerful and perfect instrument, and were to me instructive and interesting.

A portion of the washings of a plaque of diphtheritic membrane was mounted, and a satisfactory view was obtained of the micrococci and microbacteria of "Cohn." Another specimen was mounted, and I was fortunate enough to distinguish the entire family series. I now, after many experiments, discovered that by directing a fine air jet upon the liquid in the field of the microscope the different cocci could be separated and isolated.

CASE 17.—6.40 A.M. Placed a few of the isolated micrococci upon a denuded spot on my left arm. 9.20 A.M. Slight itching and burning at point of infection. 12 M. Removed a drop of exuded serum from the point, and mounting it, detected young micrococci in great numbers. Slight opalescent exudation over the point of contagion; cephalalgia. 9 P.M. Some fever. Pulse 85, temperature 100° F., in axilla of left arm. Lymphatic glands on that side turgid and full; exudation thicker and more opaque, and more populous with cocci. 12.30 A.M. Pain in axillary and submaxillary glands. Fever and headache. 7 A.M. Urine slightly albuminous and copious. Pulse 110. Temperature 101.5°

F. Fauces dry and tongue coated. 12 M. Pulse 110. Temperature 101.5. Slight patches appearing on tonsils. A portion removed and mounted shows many micrococci and a few microbacteria; as there were no microbacteria injected, the question arises, whence their origin? The urine was now heavily loaded with lithates and phosphates, and slightly albuminous. Bowels constipated and slight lumbar pain. Commenced taking five-grain doses of quinine sulphate every four hours, also drachm doses of saturated solution of potassium chlorate. Every hour inhaled vapor of oxygen containing as much chlorine as could be tolerated.

6 A.M. Lumbar pain still prevails; pulse 100, temperature 100°; slight hoarseness and cough; bowels slightly loose. Throat clearing off, but sore and red. Urine less heavily loaded. Lymphatic glands still hard and tender.

9 P.M. Symptoms steadily improving; pulse 95, temperature 99.5°. Omitted medicine from this time on, with the exception of a gargle of potass. chlor., which was used for a week before entire recovery of the throat took place. For a long time the fauces were very sensitive to sudden changes of temperature. Cardiac irritation, which had troubled me for some years previous to this experiment, seemed to be exaggerated.

CASE 18.—11 A.M. Placed a few isolated microbacteria upon the fauces of a robust German girl, twenty years of age, suffering from uncomplicated tonsillitis.

4 P.M. Tonsils presenting milky exudative dots at point of contagion.

9 P.M. Pulse 105, temperature 100.5°. Fauces coated with semi-transparent, fibrinous deposits. Urine slightly albuminous.

9 A.M. Pulse 115, temperature 101.5°. Deposit on fauces shows bacteria and cocci. As no cocci were implanted, where did they come from? Are these germs interchangeable forms of the same organism?

12 M. Throat clearing off; fever has subsided. Urine presents faint trace of albumen but no casts. In this instance patient was put upon the same course of treatment as in my own case. From this time on patient made a good recovery.

CASE 19.—Sister of last patient; aged nineteen years and of strong physique. 11 A.M. Isolated a few spirobacteria, and inserted among the faucial folds. 4 P.M. Right tonsil red and angry. 9 A.M. Grayish deposit on fauces. Lymphatic vessels and glands in neck and axilla swollen and tender. Urine scanty and turbid.

Pulse 85, temperature 93.8°. 12 M. Fever well marked; pulse 115, temperature 101.5°. Dryness and pain in fauces. Stiffness of jaws and hoarseness. 4 P.M. Patient nervous and irritable; high fever, and throat freely coated with exudation. Urine albuminous and shows hyaline and epithelial casts.

5 A.M. Patient better; pulse 98, temperature 100°. Exfoliation progressing rapidly. Urine less heavily loaded with debris.

8 A.M. Pulse 85, temperature 99°. Urine less colored. Throat ragged. The same treatment was pursued from the first symptoms in this case as in the two previous ones. In this case a mounting from the faecal deposit showed large numbers of spirobacteria, both of the genera *tenuis* and *undula*, the *undula* largely in excess; a portion of renal epithelial excretion showed, however, *tenuis* in excess, also some larger cocci and unclassified forms, with large quantities of granular matter and pigment cells. As great care was taken in isolating the spirobacteria in the infecting liquid the result was surprising and quite inexplicable.

CASE 20.—Patient an American, fifty years of age, a man of dissolute habits. Recently recovered from secondary manifestations.

8 A.M. Introduced a mixed colony of bacteria beneath the cutis upon left arm. 8 P.M. Slight roseolar appearance at point of infection. Axillary glands and vessels full and painful. 8 A.M. The glandular system engorged and active. Arm red and swollen; high fever. 12 M. Red lines extending from point of infection up along the track of the lymphatics. Pulse 110, temperature 101.5°. Urine scanty and clouded; throat extensively involved at seat of old specific ulcers. Increased activity of the cocci, burrowing deeply and propagating rapidly. Back and loins are exquisitely sensitive. Pain in the jaws. Lungs and spleen tender and irritated. Bowels constipated. 4 P.M. Fever increasing; pulse 125, temperature 101.8°. Urine scanty and albuminous. Cough and expectoration of white granular mucus; slight jaundiced hue of skin and conjunctiva. Throat is exfoliating, leaving large, deeply excoriated spots. Specimen mounted presents immense numbers of bacteria of all types. Larger cocci and unclassified forms the most numerous.

11 A.M. Fever increasing. Pulse 130-140 and unsteady, temperature 104°. Mucous surface presents dark, ragged, unhealthy bases, with no disposition to granulate. Mental aberration. Epistaxis and tendency to passive hemorrhages from the denuded surfaces. Urine heavily loaded with casts, albumen and debris.

12.30. Respiration labored and slow. Fever still high.

In addition to the medication, which was similar to that in the three previous cases, the patient was placed in a bath at the temperature of 70° Fahr., and retained therein for thirty minutes; upon removal the axillary temperature had fallen to 101.5°, and the pulse had dropped to 110 per minute. The patient was now given thirty grains of quinine sulphate and put to bed. 6.30 A.M. Patient conscious and head easier. Has experienced no "tinnitus aurium" from the large dose of quinine. Pulse 103, temperature 101.1°. Fauces dark and unhealthy; but a few drops of pus has appeared.

As patient had suffered from constipation from the commencement, he was given grs. xx hyd. chlor. mit. The lymphatics presented a soft and sloughy appearance.

9 A.M. Free catharsis; expelled large numbers of cocci and bacteria with the faeces. Pulse 98, temperature 100.8°. Liver still tender, though not occupying so much space. Spleen more active. Kidneys still throwing off large quantities of debris. Patient very weak and exhausted.

Left off the quinine and the inhalations, and substituted a pill composed of phos., strych. and damiana.

4 P.M. Patient easier and sleeps much. Relishes beef tea, eggs and brandy, more especially the brandy. Patient made a very slow recovery, and at several times suffered from relapses and paralyses of special muscles. Regained good health but the virile appetite was entirely destroyed. This teaches that the world was really benefited by the experiment, both in a scientific and a moral point of view, although from the severity of the remedy a more harmless anaphrodisiac would be indicated. Having so nearly sacrificed the life of this patient upon the altar of my enthusiasm, I resolved to confine all future experimentation to the field of the animal kingdom.

Preparatory to this I isolated a number of micrococci and inoculated three healthy rabbits with about an equal quantity of the cocci.

CASE 21.—8 A.M. Rabbit No. 1 was kept in common air and his symptoms noted at intervals. 12 M. Shows signs of uneasiness. 4 P.M. Slight fever, thirst, redness of fauces. 9 P.M. High fever, patches of fully developed micrococci. 9 A.M. Rabbit in comatose condition. The rabbit was now killed and colonies of cocci were found in the larynx, pharynx and trachea. Other pathological conditions the same as in similar cases.

CASE 22.—8 A.M. No. 2 was placed in an atmosphere heavily charged with vapor of acid carbolic., and at 12 M. uneasy and restless, with slight febrile symptoms. 4 P.M. More quiet, sleepy and stupid. Tongue furred and slight fever. Urine high colored. Slight patches appearing upon fauces at seat of infection. 9 A.M. Killed this rabbit and found thin, weak patches of cocci in fauces, throat and larger bronchi. Other pathological appearances the same as in similar mild cases.

CASE 23.—8 A.M. Placed rabbit No. 3 in an atmosphere heavily charged with oxygen and as much chlorine diffused as the mucous tissues would tolerate. 12 M. Restless and uneasy. 4 P.M. Nearly as quiet as usual. Buccal membranes red and active. 9 P.M. Slight febrile symptoms, but no exudation. 9 A.M. Killed this rabbit and found a few small, weak cocci burrowing down among the epithelial cells, as if seeking to escape the effects of the chlorine.

CASE 24.—Isolated a number of microbacteria and placed a few upon the fauces of three adult healthy rabbits. No. 1 was confined in common air at 8 A.M., and retained in that medium until 6 P.M., when he appeared feverish and uneasy. 8 A.M. Killed and found fauces extensively coated with deposit abounding in bacteria. Other conditions as in similar stages of diphtheria.

CASE 25.—6 A.M. Rabbit No. 2 was confined in carbolized vapor, and at 12 M. showed no symptoms of uneasiness or distress. 4 P.M. Slight fever, but no exudation. 9 P.M. Slight fever with mucous exudation. 8 A.M. Killed rabbit and found a few weak spores of microbacteria.

CASE 26.—8 A.M. Rabbit No. 3 was enclosed in an atmosphere of chlorinated oxygen. 9 P.M. Slight febrile symptoms. 9 A.M. Killed rabbit and found tissues nearly normal, except some superficial excitement occasioned by the fumes. No deposit, and could find no bacteria.

CASE 27.—Inoculated rabbit with micrococci, immersed in an atmosphere of carbolic acid and killed at the expiration of twelve hours; found numerous and extensive distribution of cocci.

CASE 28.—Inoculated rabbit and immersed in carbolized fumes for twenty-four hours, when, upon making post-mortem, vast accumulations of cocci were found.

CASE 29.—Infected rabbit with micrococci and subjected to fumes of carbolized air for thirty-six hours; then killed and found relative number of cocci lessening.

CASE 30.—Infected rabbit with micrococci and subjected to fumes of chlorinated oxygen. At

the end of twelve hours killed and found a few weak cocci.

CASE 31.—Infected rabbit with micrococci and confined in an atmosphere of chlorinated oxygen for twenty-four hours, when post-mortem revealed still less cocci than in the previous case.

CASE 32.—Infected rabbit with the same germs and subjected to the same fumes for thirty-six hours, when, upon examination, only a few isolated inactive germs were found.

CASE 33.—Infected rabbit with microbacteria, and subjected to carbolized vapor for twelve hours, and killed and found bacteria, free and encysted, healthy and active.

CASE 34.—Infected another rabbit with the same virus and subjected to same fumes for twenty-four hours, then killed and found more bacteria than in the previous case, but burrowing deeper into the tissues.

CASE 35.—The same infection, and under the same circumstances, for thirty six hours, when examined showed a few cocci and a large number of microbacteria.

CASE 36.—Infected rabbit with microbacteria, and after breathing an atmosphere of chlorinated oxygen for twelve hours the autopsy revealed a few scattered bacteria and a few cocci (?) both being dormant and inactive.

CASE 37.—The same infection and same atmospheric environments for twenty-four hours presented a few faint traces of bacteria.

CASE 38.—Subjected rabbit to same infection and same treatment, and after waiting for thirty-six hours, killed and found neither of the germs above mentioned.

CASE 39.—Infected rabbit with spirobacteria and subjected to carbolized air for twelve hours, when autopsy showed the spirillum in increased numbers.

CASE 40.—The same in all respects as Case thirty-nine; kept twenty four hours; killed and found a smaller number of spirillum than in the previous case.

CASE 41.—In this case the same infection and the same counteracting influences; at the end of thirty-six hours killed and found but very few spirillum.

CASE 42.—Infected rabbit with spirillum and subjected to chlorinated oxygen for twelve hours. A few pale, weak spirillum, not markedly increased.

CASE 43.—Rabbit placed under the same conditions as in Case forty-two, and at the expiration of twenty-four hours presented perfectly normal appearance.

CASE 44.—Same as the two previous, and at

the end of thirty-six hours presented negative result as to contagion.

CASE 45.—Isolated a number of micrococci and passed a strong galvanic current through the liquid for several minutes; with this preparation a rabbit was inoculated, with negative result.

CASE 46.—In like manner galvanized a colony of microbacteria and inoculated a rabbit, with a like failure.

CASE 47.—A colony of spirillum were galvanized and injected into the tissues of a healthy rabbit, with like failure.

CASE 48.—Galvanized a fragment of fresh diphtheritic membrane, which contained a large number of the germs, and placed it upon the fauces of rabbit. No result.

CASE 49.—Infected rabbit with a portion of the membrane from the same source as that last mentioned, and after twelve hours symptoms of infection had appeared. Galvanized the seat of infection, but case progressed to fatal termination.

CASE 50.—Infected rabbit as in last case, and at the expiration of six hours gave local and general galvanization. The symptoms were apparently ameliorated, but the case nevertheless, reached a fatal termination at the expiration of forty-one hours, presenting the anatomical lesions usually found in an uninterrupted case of "diphtheria."

At the conclusion of these experiments, I, of course, was firmly convinced that the theory was satisfactorily demonstrated, that "diphtheria depended upon the vegetable sporules," as heretofore described. Continuing my series of investigation through the last year, various occurrences pointed towards the conclusion that, although these bacteria were an *almost* constant accompaniment of diphtheria, yet a doubt arose as to their being the cause.

During the month of September, 1880, an epidemic of diphtheria made its appearance in our midst, of quite a mild type. The fatal cases averaging about five per cent., but presenting all the symptoms and contagiousness of genuine diphtheria. In twenty microscopical examinations of material from these cases, only three presented appearances of the bacteroid group, and these were all in cases that recovered.

January 15th, 1881. Was examining a specimen of diphtheritic membrane which I had secured from a patient of a neighboring physician, whose case terminated fatally. Being unable to discover any cocci, or other of the group of germs, I made a solution of the washings from the

membrane, and was continuing my search assisted by blowing a fine jet of air upon the liquid upon the glass slide from the mouth, through a fine glass tube. Inadvertently I placed the wrong end of the tube in the mouth and conveyed some of the liquid to the tongue and fauces. At once infection was set up, running its regular course, though mitigated by treatment; the fever for forty-eight hours was high. In this case I am certain there were no bacteria in the specimen examined, nor did they appear in any of the secretions during its course.

In view of all these facts, what are we to conclude? Is it *not probable* that the true virus is a chemical agent, and that the cocci, bacteria, etc., are simply an accidental accompaniment or carrier of the poison? Or do we have protoplasmic germs too small for the microscope, but which produce the bacteria in the deeper tissues? The frequency and almost constancy of appearance during the first years of the experiments, points toward the conclusion that these germs were the ultimate cause; while the later results *seem* to indicate their accidental presence in the previous cases, or the supposition that in these later cases we had a modified form of disease to deal with, which, in its symptomatology and pathological lesions was precisely similar, but different in its etiology. One fact is demonstrated, that antisepsics benefit the disease.

CHLORAL HYDRATE IN DYSENTERY, GASTRITIS AND ALLIED DISEASES.

BY H. H. KANE, M.D.,
Of New York.
Dysentery.

Chloral has been used with considerable advantage in dysentery. It undoubtedly does good, and has a treble action, viz: as a local stimulant and anæsthetic, as an allayer of spasm and as an antiseptic. That it has an antispasmodic action aside from that due to local contact is proved by the fact that it has been found to produce the same result when used by the mouth.

Dr. Curei* (*Il Raccolto Medico*, Nos. 15-18, 1878), having found chloral of decided benefit in the diarrhea of typhoid fever, tried it in seventeen cases, during an epidemic of dysentery. The results in all were very satisfactory. He first gave it in combination with chlorate of potash, but he afterward gave it alone, using barley water as a vehicle. It was given both by the mouth and enema. When given by the mouth the dose was from one to three grams a

* *Practitioner*, Oct., 1869.

day; as an enema, one gram of chloral was dissolved in two hundred grams of barley water. When given by the mouth Curci advises the use of a mild purgative first, in order to prepare the bowels for the action of the medicine. It acts not only as a soporific, but also as a sedative, astringent, antispasmodic and antiseptic. If it only lessened the pain by producing sleep it would be anything but a desirable remedy, as the disease must be progressing while the patient and physician are lulled into a false security. It has a very decided action, however, aside from this, through its action on the cerebro-spinal system as well as on the sympathetic; the nerves being very much affected in dysentery, the discharge will be lessened and the formation of flatus, a source of so much pain in this disease, prevented. After two or three grams have been taken (in some mucilaginous vehicle), there is first an increased peristaltic movement, which is followed by diminution in the sensibility and the frequency of the stools. This effect is due to the action on the sympathetic, there being first an excitation and then a paralysis produced. In this way the chloral lessens both the pain and the discharge. Curci thinks that purgatives given in the early stages of the disease are the only medicines comparable in value to chloral. He condemns antiphlogistic remedies, as well as the use of opiates and astringents.

Dr. David Prince,* of Edinburgh, who was one of the first to use this drug in dysentery, employed it as an abortifacient, giving a dose large enough to procure sleep. He used it in conjunction with one or two ounces of the sulphate of magnesia, and says that the subcutaneous use of morphia aids its action. Curci † does not believe, with Dr. Prince, that it lulls the pain and lessens the number of passages simply by its action as a hypnotic, but by a direct and positive effect on the sympathetic system.

Drs. W. L. Newell‡ and J. S. Whittaker have used chloral enemata in a large number of cases of this disease with excellent result, in every case aborting the disease within a few hours.

In the case of a child of eleven, who suffered with thirst, pain, tenesmus, and had twenty-five to thirty dejections in twenty-four hours, 5 grs. of chloral hydrate in 2 ozs. of starch gruel were thrown up the bowels, with considerable force, from a hard rubber syringe. The injection remained three hours, during which time the child

* (*Edinburgh Medical Journal*), *Braithwaite's Retrospect*, Jan., 1877, p. 272.

† Op. cit.

‡ (*Philadelphia Medical Times*), *Druggists' Circular*, etc., December, 1878.

slept. Many of the other symptoms were modified, and the injection was repeated, remaining seven hours, and then came away with some fecal matter, but without tenesmus. Four enemas were given, in all, and treatment was discontinued in forty-eight hours. It was also tried in the case of a lady, aged twenty-five, using ten grains instead of five, and securing complete repose for eight hours, although she had previously had twenty to thirty movements in twenty-four consecutive hours. In conclusion, he says: "The number of aggravated cases of dysentery we have treated with chloral hydrate warrants us in the assertion that, if early and promptly used, it is almost a specific."

J. M. Pace, of Dallas, Texas, and C. H. Hunt, of Stanwood, Ohio, write me that they have had good results in its use in this disease. In a case of very painful chronic inflammation of the rectum, Prof. H. M. Lyman* injected a fifty per cent. solution of this drug, with decided temporary benefit.

Too much credit must not be given, however, to any drug in the treatment of cases of acute sporadic dysentery, as will be seen by the following: Prof. Austin Flint,† a very careful and reliable observer and student, reports ten cases of this disease that from beginning to end were entirely unmodified by medical treatment. Among other conclusions arrived at are the following:—

1. The disease in a temperate latitude tends, without treatment, to recovery.
2. It is a self-limited disease, and its duration is but little if at all abridged by methods of treatment now and hitherto in vogue.
3. Convalescence is as rapid when active measures of treatment have not been employed as in cases actively treated.

Dr. C. T. Rodgers,‡ of Lipau, Texas, has used chloral by the rectum in this disease, without obtaining any good results.

Dr. T. J. Crofford,§ of Coffeeville, Miss., has thus used it with success. I have been much pleased with its action in four very severe cases, where I followed Curci's plan exactly. It rapidly allayed tenesmus, relieved pain, diminished the frequency of the motions and produced refreshing sleep.

In infantile diarrhoea some observers have found it to act almost magically.

James Tisou|| praises highly the combined use

* By letter.

† *American Jour. Med. Sciences*, July, 1875.

‡ By letter.

§ By letter.

|| (*Le Progrès Médical*, January 31st, 1880), *St. Louis Courier of Medicine*, April, 1881.

of hydrate of chloral and oxide of zinc, in cases of intestinal irritation, infantile diarrhoea, summer diarrhoea in young infants. He administers chloral by injection and oxide of zinc by the mouth. At the same time a strict diet is prescribed. Here are his favorite prescriptions:—

R. Chloral hydrate, 1 gm. 30 grs. xxiiss
Starch water, 60 gm. 3 ij. M.

Sig.—One, or one and a-half coffee-spoonfuls for a small injection, repeated twice or three times a day.

On the other hand, he gives, every five hours, a coffee-spoonful of the following mixture:—

R. Zinc oxidi, 1 gm. 50 grs. xxiiss
Pulv. gum. acaciae, 7 gm. 50 grs. cxij
Sacch. alb., 7 gm. 50 grs. cxij
Lactopeptine, 3 gm. 50 grs. lij
Aqua canellae, 32 gm. 3 j.

Prof. Adolph Kjellberg* writes, in *Nordiskt Medicinskt Arkiv*, vol. xi, No. 3, that there is no medicine which is of so much use as chloral in checking the vomiting in acute gastro-enteritis of children. Being rapidly absorbed it stops the vomiting, calms the patient, and often checks the diarrhoea. It is best given by enema, so as not to risk its rejection by the irritable stomach. It should be given soon after the bowels have been moved. The dose for a child of from five to six months is twenty-five to thirty centigrams (three and a half to four grains), while to a child of from twelve to fifteen months, fifty to sixty centigrams (seven to eight and a half grains) may be given. The bulk of the injection should not exceed a dessert-spoonful. The enemas may be repeated two or three times daily, and the dose may be increased if it is found necessary. In order to increase the effect of the chloral the author generally adds to each enema a drop of the tinct. opii, and if stimulants be indicated, five to fifteen drops of liq. Hoffman. At the same time other remedies are not neglected; iced water, or cognac, or champagne for the vomiting, opium for the diarrhoea, hot mustard baths for albuminuria, should it occur, stimulants for collapse, etc.

Dr. Quintus C. Smith,† of Austin, Texas, has found it of service in infantile diarrhoea.

Dr. Créquy‡ (*Bull. Gen. de Therap.*, Sept. 30th, 1875) relates two well marked cases of fissure cured by this drug. Charpie soaked in 1:50 sol. was inserted just within anus. Bowels regulated. Pain disappeared after first few applications.

* *Western Lancet*, May, 1881, p. 142.

† By letter.

‡ (*London Med. Record*, Nov. 15, 1875), *Monthly Abstract*, Jan., 1876.

In cholera morbus and intestinal colic this drug has been successfully used. Dr. Louis B. Bouchelle* says, that in cholera morbus, a single dose of 20 gr. will often stop all suffering. Dr. Evan Cameron† reports like good results in two cases of severe cholera morbus in adults. Bartholow‡ speaks highly of it in severe cholera morbus. Dr. John D. Jackson,§ of Danville, Ky., says that as, in animals, digestion and peristaltic action go on while they are taking chloral, it should therefore be of little service in colic and like affections. Clinical experience proves this not to be the case, and the argument is undoubtedly based upon wrong premises, for no drug that acts as an antispasmodic in abnormal condition of spasm, interferes in health, in medicinal doses, with normal muscular action.

Dr. E. Noble Smith || reports a case of obstruction of the bowels, presumably spasmodic, with stercoraceous vomiting, where a rapid relief to all symptoms followed the use of chloral.

Dr. Monckton,¶ of Maidstone, relates a case where a hernia had been reduced some months before. Symptoms of strangulation of the gut in the abdomen appeared. Full doses of chloral quieted pain, produced sleep, and the patient fully recovered.

The following interesting case is by Dr. Salvator Caro:—**

A feeble old man, aged 86, with senile paralysis, had suffered with oblique inguinal hernia since the age of 24; always wore a truss, except at night. On retiring at 10 P.M. Nov. 1st, the intestine came down; he could not return it; after six hours I was summoned; found left hernia in inguinal, somewhat strangulated; easily reducible. The right was in the scrotum, and obstinately resistant to all efforts at reduction. After a long and unsuccessful trial at taxis, strong belladonna fomentations were applied, and castor oil administered; oil was vomited; belladonna did no good. 10 A.M. patient was chloroformed to anaesthesia; reduction still impossible; left eight hours under belladonna fomentations, when a tobacco enema was given, with no benefit: eight hours after this, and twenty-eight after the first discovery of the strangulation, patient growing weaker and more restless, with increasing abdominal pain and anxiety, recourse was had to hydrate of chloral; the specimen used was pre-

* *Boston Med. and Surg. Journal*, 1874, p. 275.

† *Lancet*, Feb., 1871.

‡ "Hypodermic Medication," Phila., 1879, p. 191.

§ *Richmond and Louisville Med. Jour.*, Feb., 1871.

|| *Lancet*, Sept. 1871.

¶ (*Brit. Medical Journal*) *Practitioner*, 1870, p. 369.

** *New York Medical Record*, Jan., 1870.

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pared by E. Schering of Berlin. One gram and a half, equal to 28 grains, was dissolved in mucilage and exhibited by the mouth. Almost immediately the patient assumed a cadaveric aspect, and appeared to be in articulo mortis; at once resorted to manipulation of the intestine; it was easily returned within the abdomen twenty-five minutes after chloral had been given. Revived the patient by injection of brandy and milk per rectum, with a Davidson's syringe, in twelve hours.

Gastritis and Vomiting of Pregnancy.

Hertzka,* found chloral of great service in allaying the symptoms of ulcer of the stomach.

Dr. Ademolo,† relates four cases of nocturnal vomiting cured by small doses of chloral.

Dr. Allison Maxwell, of Indianapolis, Indiana, writes me: "The chloral had a very happy effect in the case of gastritis referred to. The patient was Dr. Theophilus Parvin's, a woman whom I attended for him when he was cal'd out of the city. She had been vomiting every hour in the day for two weeks, and was fast becoming emaciated. All remedies had failed, and the chloral checked the vomiting in about twenty-four hours."

Marjolin,‡ has found small doses of chloral by the rectum to act well in allaying the pain and vomiting that accompany burns. The use Kjellberg has made of the drug in the vomiting of acute gastro-enteritis of children has already been spoken of.

Starcke,§ (Berlin. *Klin. Woch.*, August, '78), who had long been suffering with chronic catarrh of the stomach, was tormented by sleeplessness. Chloral was used by rectum with effect of producing sleep, improving appetite and digestion; there being no longer headache and nausea. The point of the syringe must be well oiled, introduced beyond sphincter, and the fluid be warmed. He found that dose by rectum should be lower than by mouth. Fifty centigrams (7½ gr.) were sufficient in his case.

Dr. R. Hazelhurst,|| of Brunswick, Ga., used it with but moderate success in the vomiting of yellow fever.

Dr. O. D. Abbott,|| of Manchester, N. H., has used it with benefit, by the rectum, in diseases of the stomach. Drs. James Donaldson || has found it of service in gastric pain and colic; J. M. Pace,|| of Dallas, Texas, in lead and wind colic; A. P. Brown,|| of Jefferson, Texas, in colic; and

* St. Louis *Med. and Surg. Journal*, July, 1874.

† (*L'Imparciale*, March 17th, 1875); *Edinburgh Med. Journal*, Sept., 1875.

‡ *Gaz. des Hôpitaux*, 1870, p. 227.

§ *London Med. Record*, March 16th, 1879.

|| By letter.

Finley Ellingwood,* of Manteus, Ill., in enteritis and peritonitis.

Dr. C. C. Fite, of Shelbyville, Tenn., has found it specially indicated in those cases of extreme irritability of the stomach and bowels where opium has failed to give relief. Chloral given by enema, 30 grains at a time, produces quiet and sleep, and the nausea and diarrhoea are entirely relieved.

Pilcher† has found chloral and morphine excellent in the passage of gall stones. In Carlsbad, this affection is very common, and the results are always good under this plan of treatment.

Combining chloral with soda, after Liebreich's method, C. H. Hunt, of Stanwood, Iowa, has found great satisfaction in the treatment of this disease.

Giraldes‡ used chloral by the rectum in 60 grain doses, for the relief of hepatic colic, with success.

Constipation, presumably due to either spasm or torpor, has been rapidly relieved with chloral by A. S. Payne§ and E. Brallier, of Chambersburg, Pa. Payne has also used it in dyspepsia, with tr. lupulin.

Dr. J. Wm. Walls,|| of Baltimore, Md., has used it by the rectum, with decided success in the vomiting of pregnancy.

Dr. J. H. Scorff¶ (*Va. Med. Monthly*) used 20 grain doses of chloral by the rectum, repeated two or three times, with a good result in the vomiting of pregnancy, as also has Dr. W. H. Morse.**

Dr. Herzberg,†† of the Berlin Charité (*Berl. Klin. Woch.*), has found chloral of great utility in vomiting from any cause, and in some affections, as gastralgia, rapidly effective. In this paper he wishes to call attention to its great efficacy in the vomiting of the early months of pregnancy. He always uses this formula: Chloral one and a half, water one hundred, and syrup of orange-peel twenty parts, giving a spoonful every two hours. A few spoonfuls suffice to stop the vomiting for a long time. If after some days it returns again, a recurrence to the remedy entirely removes the evil.

Dr. D. B. Simmons,‡‡ Chief Surgeon to Ken

* By letter.

† *Allgemeine Wien. Med. Zeitung*, Nov., 1873.

‡ Quoted by Panas, *Gaz. des Hôpitaux*, 1870, p. 530.

§ *Southern Med. Record*, Dec. 18, 1874.

|| By letter.

¶ Quoted by J. W. Hickman, *N. Y. Med. Record*, Jan. 1881.

** *N. Y. Med. Record*, Oct. 15, 1874.

†† *Ohio Medical Recorder*, April, 1881.

‡‡ (*N. Y. Med. Record*, June, 1874); *Practitioner*, 1874, p. 206.

Hospital, Yokohoma, Japan, has successfully used chloral enemata to relieve the vomiting of pregnancy. Woman aet. 30 years, third child. Had vomited from fifth to tenth week of pregnancy. For several days previous to his seeing her the nausea and vomiting had been almost constant. She had become very much emaciated and was unable to sit up, even in bed, not having retained any nourishment on the stomach for several days. All the usual remedies had been tried, such as oxalate of cerium, hydrocyanic acid, hypodermic injections of morphia, etc., but with little benefit. He suggested 30 grains chloral hydrate in mucilage, by the rectum, morning and night. An amelioration of the symptoms was obtained by the first injection, and a still more satisfactory one followed the administration of the second. The second day's use of the remedy arrested the vomiting, except at long intervals, and on the third day both vomiting and nausea ceased entirely.

He again * calls attention to this method of treatment. Further experience still more impresses him with its usefulness. The amount of each drug and the frequency of its administration depend on individual susceptibility to its influence, but in general the dose of twenty to thirty grains of each, dissolved in gum-water, may be injected, at short intervals, until a moderate degree of narcotism is produced.

* *American Journal of Obstetrics*, April, 1870.

HOSPITAL REPORTS.

UNIVERSITY OF PENNSYLVANIA.
SERVICE OF JOHN ASHURST, JR., M.D.,
Prof. of Clinical Surgery.

Reported by GUY HINSDALE, M.D. May 21st, 1881.

Retained Testicle.

CASE 1.—The first case that I show you to day is interesting, from presenting a question of diagnosis. The patient's history is that for the last four years he has noticed a lump in his left groin. He was hit in that region by a ball. Upon looking at him the first thing that would strike you is the absence of the testicle on the left side. It is a case of retained testicle or partially retained testicle. These, as you are aware, are, during foetal life, abdominal organs, and some persons go through life with the testicles retained. Those who have both testicles retained are called cryptorchids, while a person in whom only one is retained is called a monorchid, the other testicle having come down and being in its proper position. As a result of this condition we may have an imperfect closure of the communication between the tunica vaginalis and the peritoneal cavity, the abdominal fluid finding its way into

the scrotum. This is the case in that form of hydrocele met with in infancy. A testicle which has not descended into its proper position is more likely to become diseased than one which has reached the scrotum. An organ which does not discharge its proper functions is exposed to degenerative changes. The testicle may take on cystic or sarcomatous degeneration. Hence we not infrequently have a sarcocele as a complication of undescended testicle. A cryptorchid is, according to most authorities, invariably sterile.

In this case no operation is required. If there should be any tendency to hernia we would apply a truss. Sometimes the testicle can be coaxed down into the scrotum, and in other cases it can be returned to the abdomen and a truss applied. If the testis is fixed in the groin, and hernia exists, we can employ a truss with a concave pad, which will exert no direct pressure upon the testis itself. If the testicle were subjected to any pressure there would be greater liability to disease. As the patient coughs I feel the impulse of the bowel in the inguinal canal. If any disease should follow, as, for instance, cystic degeneration, there might be necessity for an operation. If the tendency to hernia should increase, I would recommend placing a pad over the testicle, so as to prevent the descent of the hernia.

Compound Comminuted Fracture of the Jaw.

CASE 2.—After an injury so extensive as you see in the case of the man now brought before you, it is almost impossible to keep the jaw fixed. What I propose to do to-day is to remove the detached, middle fragment, and to fasten together the remains of the jaw with a wire. I think that by these means we can keep the parts in apposition for a sufficient time for union to occur.

In regard to fractures of the jaw, I find that students are very apt to make mistakes; they often forget that, in the region of the mouth, compound fractures are more likely to occur than simple fractures. They are compound not through the outside skin, usually, but through the mucous membrane. In consequence of this, the treatment of fractures of the jaw is nearly always prolonged; they require a longer time to get well than fractures of equal severity in other parts of the body. This fracture is compound both from within and without. I detach the central fragment, which is long and slender and carries a single incisor tooth; if I had allowed it to remain it would certainly have become necrosed. It is attached by only a little portion of the gum. I shall insert a wire into the bone on either side in order to bring the parts into apposition, so as to get union. Here I use a neat mechanical drill working with a wheel.

It is said that Velpeau, during the last years of his life, in treating fractures of the lower jaw, abandoned altogether any apparatus for insuring apposition of the parts, believing that the pain on moving the jaws was sufficient to ensure requisite rest. I think, however, that comfort can be given by the use of a Barton's bandage, and I do not doubt that still more accurate adjustment is gained by the dental splint, but the treatment is more annoying to the patient. Attention was directed to this mode of treatment in

the case of the late Mr. Seward, President Lincoln's Secretary of State. In the attack made upon him on the night of the President's assassination, he received, among other injuries, a severe fracture of the lower jaw. In his treatment interdental splints were used with very good results.

NOTE.—Prof. Ashurst, after drilling holes in the two opposing fragments, introduced a wire, twisting the ends so as to bring the fragments closely together. There was no hemorrhage. The patient did well after the operation, and when the wire was removed, some weeks subsequently, the bone was in good position, and union was fairly advanced.

Cutaneous Proliferous Cyst of the Back.

CASE 3.—This patient presents a small tumor of the back and a small discolored spot, as though at one time it had discharged. It is one of those cases that the Germans speak of as retention cysts. There is a retention of the normal secre-

tion of the part. The natural orifice becomes occluded and the exudation of material in the cyst continues. When this cyst is laid open we shall see why Paget classified growths of this kind as cutaneous proliferous cysts. In the majority of cases no true cutaneous lining can be recognized, but the cysts are found to contain epidermal scales, sebaceous matter, fat granules, cholesterine and rudimentary hairs. Those that are congenital and that are found in the subcutaneous tissues approach most nearly to the typical character. A favorite seat is in the orbital region, close to the external angular process of the frontal bone; in this portion of the body they are very adherent. The treatment consists in total excision.

NOTE.—A longitudinal incision was then made over the tumor, the cyst dissected out, a drainage tube was introduced and the parts brought together by silver sutures. The wound was then covered with strips of adhesive plaster, oiled lint and oiled silk. The patient did not take ether.

EDITORIAL DEPARTMENT.

PERISCOPE.

On the Causes and Prevention of Myopia.

The Philadelphia *Medical Times*, July 30th, 1881, contains an article entitled, "Weak Eyes in the Public Schools of Philadelphia," being the report of the committee on examination of the eyes of the children in the public schools of this city. Dr. S. D. Risley, chairman of the committee, observes that among the questions of great interest which at the outset of this investigation presented themselves were:—

First. Would our more youthful civilization yield different results, regarding the percentage of increase in myopia, from those reached by European observers? This was important as tending to shed light upon the possible heredity of myopia. This latter could be fully answered only by a careful study of the family history of a large number of myopes. My statistics and the records of private practice have placed this within reach, but time has not permitted its development. The question, as stated, has received a decisive answer.

Second. Myopia having been found to increase during school life, did the increase come from the emmetropic eyes, while they were recruited *pari passu* from the hypermetropic? *i. e.*, did the eyes with hypermetropic refraction pass through emmetropia to swell the percentage of myopia? This involved the question as to which is to be considered the model eyeball.

Third. What relation, if any, existed between our educational process and the increasing percentage of near-sight, and to what extent were imperfections in our school system responsible for the increase?

These questions and many of secondary importance involved in them are summarized in the following conclusions, and are, we believe, fully justified by facts.

First. That the emmetropic eye is the model or standard eye, since emmetropia was shown not only to remain nearly constant in percentage throughout the school life, but that it was also the condition of health, and withal enjoyed the highest acuity of vision and the greatest freedom from pain.

Second. That myopia, or near-sight, commencing in the primary classes with a low percentage (4.27 per cent.), steadily increases as the pupils pass to the highest grade in our public school system; that the percentage of increase is very much lower in the schools of Philadelphia than in the schools of Europe; that the myopic eye presents a higher percentage of disease than eyes with emmetropic or hypermetropic refraction; that even in myopic eyes the percentage of disease is much higher when astigmatism is also present.

Third. That hypermetropic eyes are more numerous than both myopic and emmetropic combined; that, next to myopic astigmatism, distinct lesions are most prevalent in eyes with hypermetropic astigmatism; that the increase in myopia is from eyes with already existing anomalies of refraction—usually hypermetropic astigmatism—since it was shown that in hypermetropic, next to myopic astigmatism, was exhibited the highest percentage of disease, which also manifested itself in pathological changes similar to or identical with those usually regarded as characteristic of myopia.

This conclusion is strengthened by the fact that such change has taken place under direct observation. It is by no means necessary that the distending eyeball should first pass through emmetropia. In several instances I have had the opportunity of witnessing the gradual change from hypermetropic astigmatism to myopic astigmatism, the meridian of greatest curvature being maintained. Four of these cases were published in the *American Journal of the Medical Sciences*,

October, 1880. In one of these published cases a high degree of simple hypermetropic astigmatism passed through mixed to simple myopic astigmatism. Since the date of publication, the left eye has continued to distend, until at the present writing it presents compound myopic astigmatism.

Fourth. That, while there is an evident and close relation between the increase of myopia and the school life, nevertheless, the educational methods are responsible to only a limited degree.

This conclusion is supported by the fact so strongly demonstrated in this report, namely, the very obvious relation between the errors of refraction and the diseased conditions of the fundus oculi, which shows beyond dispute that the fault is not, primarily, in the system of education, however faulty this may be in many respects, but depends upon the defects which existed in the eye itself at the beginning of the school life. The conclusion, therefore, may be formulated as follows:—

That, given an emmetropic or normal eye, the probabilities are that no harm will come to it from the educational process. On the other hand, given an eye with an anomaly of refraction, especially astigmatism, the probabilities are, other things being equal, that the educational process will be fraught with pain and danger to the eye.

Therefore, that before entering school the possible existence of defective vision should be excluded.

Fifth. That the probability of harm resulting from the school life diminishes with every added year of age, in all states of refraction.

This conclusion finds strong support in the condition of even the emmetropic eyes in the primary schools, as compared with those in the higher classes.

Therefore, that our children are placed at school at a too tender age.

Sixth. That, in view of the facts herein set forth, the great importance of proper hygienic surroundings and a wisely chosen and arranged curriculum of study is more than ever manifest.

In arranging the course of study, the principle to be kept in mind is the avoidance of protracted use of the eyes at a near point—*e.g.*, in reading, writing, or drawing.

Quinine and Veratrum Viride in the Treatment of Pneumonia.

Dr. Chas. K. Gardner, of Laurinburgh, North Carolina, says, in the *North Carolina Medical Journal*, for April, 1881:—

In pneumonia, pyrexia of the system is always present in conjunction with an engorgement of the pulmonary structure. The great desiderata then are, control of both these pathological states, a diminution of temperature and the vis a tergo. No agents so readily accomplish this end, as quinia and veratrum viride. In the former drug we have an efficient antipyretic, which notably reduces the temperature, not only by lessening the afflux of blood to the heart, but by its diaphoretic properties. In the latter, we have an agent of inestimable value in the ready

control of arterial action, which, however, must be administered with caution and observed scrupulously.

In the treatment (which has long been a *questio vexata*) of my last case, an adult, aged thirty years, I proceeded with a mercurial, followed by a brisk saline, in order to arouse hepatic secretions and relieve the prime vice of any fecal contents. Being then in the first stage, I ordered the application of a cataplasm, to which had been added $\frac{3}{ss}$ sinapis alba, over the affected lung; at this period the heat registered 103° in the axilla. I then directed that grs. xxx of quinia be administered through the day, grs. x being given at intervals of four hours, and in conjunction, ordered the following:—

R. Tinct. verat. viride,				
Tinct. opii.,	æq.	f. $\frac{3}{j}$		
Sodi. salicylat.,			$\frac{2}{ss}$	
Aqua pura,	q.s. ad		$\frac{3}{iv}$	M.

SIG.—Teaspoonful pro re nata.

This plan of treatment I adopted from the beginning of the attack, which was continued until the seventh day; subsequently, the veratrum viride was omitted and the quinine continued, however, in reduced doses. From the beginning of this treatment fever gradually diminished, gentle diaphoresis was frequently noticeable; expectoration became free, a diminution of dyspnoea, the patient resting well at night, and about the twelfth day resolution was complete and recovery rapid. This imperfect sketch embraces the happy result of this valuable mode of treatment, which I present to others of the profession, unacquainted with its great advantages, and beg of them a trial, feeling assured of their ample requital.

On Milk Analysis

Dr. E. F. Brush, of Mount Vernon, New York, who has been engaged in simplifying the analysis of milk, describes in the *New York Medical Record*, August 6th, 1881, the process he has adopted, as follows:—

I have a water-bath arranged with three funnels and one flask. In the first funnel I place milk, having previously coagulated the caseine with chloride of sodium; I boil the filtrate and throw it on the second funnel, to obtain the albumen. The second filtrate I precipitate with Fehling's solution, to ascertain the amount of sugar. From the residue in the first filter I wash the fat with ether. This ethereal solution I place in the flask. I wash the caseine with pure water, thus removing the salt. I then start my water-bath, which dries the three filters and expels the ether, leaving the fat. When these are dry, all that is necessary is to weigh the results.

As the other salts contained in specimens of milk are found to occur in only very small proportions, and as their significance, thus far, is of slight importance, I have not attempted to ascertain them with strict accuracy.

In testing with the lactometer, we are led astray both by the presence of water and by an excess of cream. I obviate these difficulties by first co-

agulating the caseine, and then taking the specific gravity of the filtrate. This, as you can see, removes both the sources of error. There is, I think, only one possible source of error in taking the specific gravity in this way—that is, the addition of salt may keep up the specific gravity of the serum. This can be eliminated, if one suspects its existence, by precipitating the chloride with nitrate of silver. Of course, a considerable amount of labor is required to obtain a standard. I have not done so. Having dealt in milk for years, I have relied on this test, and as our ingenious milkmen have not discovered it, I have not thought it necessary to guard against a fraud which might be perpetrated if the test were known.

The Surgical Treatment of Abscess of the Liver.

In a paper published in the *Annals of Anatomy and Surgery* for June, 1881, Dr. Randolph Winslow, of Baltimore, summarizes the results of his investigations in regard to the surgical treatment of abscess of the liver as follows:—
1. The liver should always be aspirated in a case of suspected abscess, in order to verify the diagnosis.
2. Many small and a few large abscesses have been cured by one or more aspirations; hence this method should always be employed at the first exploration, and we should then wait until it refills. If the pus collects slowly and in small amounts, it may be again aspirated; if quickly and in large quantities, aspiration is not to be relied upon.
3. Incisions should be made into the abscess cavity at the most prominent portion of the tumor, whether in an intercostal space or not; and irrespective of the presence or absence of adhesions.
4. Rigid antiseptic precautions add much to the safety and certainty of a successful result.
5. When Listerism is impracticable, good results will generally be obtained by simple incision or puncture by a trocar and canula, followed by the introduction of a drainage tube, and the daily use of carbolized injections.
6. Any of these methods is preferable to leaving the case to nature.

REVIEWS AND BOOK NOTICES

NOTES ON CURRENT MEDICAL LITERATURE.

—Dr. C. H. Hughes, of St. Louis, Mo., in a reprint from the *Alienist and Neurologist*, for July, 1881, treats of "Illusion, Hallucination, and Delusion." His paper is a differential study for forensic purposes.

—"The Management of Wounds," is the title of a well written pamphlet of fifty-four pages, by Dr. David Prince, of Jacksonville, Illinois. The author treats his subject in a comprehensive manner, beginning with a historical notice and giving full attention to various methods and their comparative value. The subject is further illustrated with nine wood cuts, and a complete index is appended.

—A paper on "Advancement of the Rec-

tus" as one of the means of correcting strabismus, by A. E. Prince, of Jacksonville, Illinois, which comes to us in the form of a reprint from the *St. Louis Medical and Surgical Journal*, forms a valuable contribution to ophthalmological literature. This operation has not, we think, received the consideration it deserves. The method of performing and the indications which call for this operation are daily set forth.

BOOK NOTICES.

Clinical Lectures on the Diseases of Old Age. By J. M. Charcot, M.D., Professor in the Faculty of Medicine of Paris, Physician of the Salpêtrière, etc., etc. Translated by Leigh H. Hunt, B. Sc., M.D., Laboratory Instructor in Pathology in the Medical Department of the University of the City of New York. With Additional Lectures by Alfred L. Loomis, M.D., Professor of Pathology and Practical Medicine in the Medical Department of the University of the City of New York, etc., etc. Cloth, 8vo, pp. 280.

Coulson on Diseases of the Bladder and Prostate Gland. Sixth Edition, Revised. By Walter J. Coulson, F.R.C.S., Surgeon to the St. Peter's Hospital for Stone, etc., and to the Lock Hospital. Cloth, 8vo, pp. 393.

These works constitute the volumes for June and July respectively, of Wood's Library of Standard Medical Authors, published by William Wood & Company, 27 Great Jones street, N. Y.

Diseases of old age, like those of childhood, form a distinct class, and should, therefore, be studied separately. Perhaps no institution in the world affords so great an abundance of material for observation in this special department as the Salpêtrière Hospital, and the publication of these lectures by a teacher of such acknowledged ability as M. Charcot must be regarded as a valuable addition to medical literature. The additional lectures by Prof. Loomis, which, he informs us, embody, in the main, the salient points in diseases of advanced life which he has been accustomed to impress on his classes at his clinic in Bellevue Hospital, greatly enhance the value of the work.

From a cursory examination of Coulson's work we are inclined to regard it as a very thorough and exhaustive treatise on this subject, which, from its importance, demands the special attention of every surgeon. The chapters on stone in the bladder take up more than two thirds of the volume, the various operative procedures, as well as the solvent treatment and preventive treatment being fully discussed.

THE

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THE LATER VIEWS ON MESMERISM.

Under the promising title, "The Secrets of Mesmerism," an English medical contemporary lays before its readers the reports of some cases from the wards of the famous Paris hospital for nervous diseases, the Salpêtrière, apparently under the impression that the phenomena attending these cases are identical with those produced by the mesmerist.

The writer states that if we wish proof that mesmeric phenomena are not produced by any "fluid," but are solely the result of "expectant attention," it is afforded by the success of such a method as seating the patient and making her look fixedly at something, a pencil or a silver pen-holder, placed between her eyes, which succeeds equally with any other. But patients who have been already frequently hypnotized, may be influenced much more rapidly and by still more simple means. Their own imagination plays the most important part. A patient at the Salpêtrière was so convinced of the power of one

of the staff to "magnetize" her, that she fell, hypnotized, whenever she met him. With such predisposed patients, even simply extending one hand over their heads is sufficient to thoroughly hypnotize them. M. BOURNEVILLE having persuaded a patient that she could not leave the ward because he had magnetized the door-handles, when she touched them she fell down asleep. This illustrates how magnetized waters and magnetized trees have produced their effects. Magnetization at a distance is equally explained as the result of imagination. If one of their patients were told that M. X— was in the next ward engaged in magnetizing her, she would fall asleep. On one occasion M. BOURNEVILLE told a patient that, from his own house, he would cause her to fall asleep at three o'clock in the afternoon; and, on the following day, he learnt that, at three o'clock, she fell asleep. But M. BOURNEVILLE says that he did nothing at all; that he did not even think of the patient at the time when she supposed him to be exercising his mysterious influence over her, and that the result was entirely the effect of her own imagination.

There is no doubt but that these records are true, and that very many cases of mesmerism arise precisely as described, and are so to be explained. But does this exhaust the category? Are there no other factors in some of the instances which have been produced? Undoubtedly there are, and it is an unworthy prejudice to reject them because we cannot explain them so easily as we can the phenomena of hysteria major.

Many cases reported by HAIDENHAIN were not of nervous women, but robust men; not those expecting a definite event, but those not knowing what to expect. It has been, moreover, abundantly shown that certain persons can deprive themselves of the sense of pain by voluntary effort. Dr. FARNESTOCK has reported, in the Boston *Medical and Surgical Journal*, a case or more, of women in confinement, who, by following out his directions, passed through parturition without feeling pain.

Then there is the curious phenomenon of "transvoyance," which we lately referred to as

having been demonstrated by Dr. BEARD. This, we believe, was first clearly recognized by the MARQUIS DE PUYSEGUR, who named it "clairvoyance," about 1780. Undoubted instances of it were, indeed, recorded both before and after his time, but he was the first, we believe, to bring it into relation with the mesmeric condition.

As to the theory of a "fluid," that is neither here nor there. As a theory, it is no better nor worse than another. It does, in fact, not come into MESMER's own explanation of the phenomena he exhibited. His own words on this point are: "The whole creation is in a mutual relation of its parts, through the medium of an ethereal substance. This substance moves rapidly, acts at a distance, is refracted and reflected like light, and can be antagonized by various substances."

It was the action at a distance—*Wirkung, in die Ferne*—which was most abhorrent to scientific minds, and which Goethe made game of in one of his prettiest minor poems. How MESMER understood it, or whether he understood it at all, is a question which is not worth while going into here; certain it is that expectant attention will not explain all that has been shown as this action, unless we are ready to assume that the mind can be unconsciously expectant—a proposition perhaps not paradoxical after all.

In the revival of the interest in these and kindred obscure and curious appearances we may hope that the advanced science of to-day will succeed in elucidating the mysteries which so puzzled our predecessors; perhaps we may even be able to turn them to good account in furthering the main purposes of our profession.

To those who would pursue further investigations into the subject we would recommend the perusal of a very thorough criticism of its literature in a late number of Schmidt's *Jahrbuch*, (No. 4, June 30th, 1881). It is by Dr. P. J. MÖBIUS, of Leipzig, and he enumerates ninety-two articles and treatises, over *sixty* of which have appeared since 1875. He believes that these phenomena by no means originated with MESMER, but are clearly described in various ancient authors. Thus a Scotch physician, by name Maxwell, published, as far back as 1679, a treatise,

De Medicina Magnetica, in which there is no talk of actual magnets but of this peculiar power alleged to be exerted by one person over another.

SOME TESTIMONY ABOUT THE ENGLISH CONTAGIOUS DISEASES ACTS.

Under the pressure of well meaning but short-sighted persons, the House of Parliament appointed a committee to investigate the workings of the Acts which, in certain specified towns in England, place the public prostitutes under medical supervision. The testimony has been lengthy, and some of it evidently given under strong bias. One cannot, however, read it over carefully without being impressed both with the undoubted beneficial results of the Acts, not only on the male population, in diminishing disease, but on the women themselves, physically and socially.

Thus we may quote the testimony of the Rev. THOMAS PUFFIELD, who stated his conviction that the Acts had had a most beneficial effect on his town. Having been familiar with the locality before the Acts came into force, it was impossible not to be struck with the much more orderly condition of the streets, the diminished number of common women, and the more decent and cleanly appearance of such few as were now seen—a result he could not attribute to any other agency than the Acts, as all other police regulations remained precisely the same. The operation of the Acts was also a most valuable means of getting at the women with a view to their reclamation.

With regard to the oft-repeated statement, that it was unsafe for respectable women to walk about the streets, for fear of interference from the officials appointed to carry out the Acts, he said that, on the contrary, the order and decorum established in the streets now rendered it possible for respectable women to go out with perfect security. Moreover, he had always been known as one willing to assist those who had grievances of any kind, and particularly he was known as the champion of poor people; but he had never once, during all these years, had any complaint of an attempt to subject a virtuous woman to the workings of the Acts.

The reverend gentleman added that in supporting these Acts, as he did, he was taking a view quite opposed to that held by many other Congregational ministers, and no little loss of popularity was involved. But he was unable to resist the strong conviction that had forced itself upon him; and he felt sure that if other ministers had had his opportunities, and seen what he had, they would be of his opinion. Many of them, however, before they had given themselves time to study the operations of the Acts, had allied themselves with those who were already fixed in their convictions and could not act independently.

An examining surgeon under the Acts, Dr. Barr, gave his own experience decidedly in their favor, and declared positively that there had been no complaints from the women of harsh conduct on the part of the police engaged in carrying out these Acts. He made a point of asking the women, when they came before him, if they had any complaint to make, and he had never once heard of anything of the kind.

He remembered several instances of women (by no means common prostitutes, in the ordinary sense of the word) who had come into the district and voluntarily subjected themselves to the regulations of the Acts, in order to obtain the medical treatment they could not get elsewhere.

With regard to the reclamation of the women, he testified that everything possible, under the circumstances, was done to secure this, and the efforts were frequently successful.

The *Lancet*, however, has some just observations in this connection, meriting quotation. It says:—

It is one of the characteristics of modern thought, and would seem to be a striking trait of the most recent development of intense humanitarianism, that the pursuit of the highest good for the greatest number is peculiarly apt to be accompanied with intolerance of the need of special classes of the community. It is nothing to the impulsive reformer that human nature is, and always will be, so constituted that it must needs be saved from the consequences of its own wrongdoing. These optimist moralists will hear of no concession to weakness, and spurn the thought of conceding anything to the exigencies of our imperfect state. They would not have given so much

as a cup of cold water to either of the impenitent thieves, and would have shrunk with horror from the prayer of the devils that they might pass into a herd of swine. Hagar might have perished with her ill-begotten babe in the wilderness. Jonah would have been left to die in the sun, and the manslayer might have been overtaken by the avenger, before one of the agitators against Contagious Diseases Acts, or any other provision for lightening the so called "penalties of sin," would have striven to help them. The argument would have been, these thieves deserve their punishment, and it will encourage others if we relieve their sufferings. These evil spirits have no claim to our compassion, and we must, for example's sake, turn a deaf ear to their beseechings. If such characters as Hagar are relieved, and the children of their shame rescued from destitution, vice will be fostered. Those who take life must pay the penalty; it will increase the crime to reduce the punishment; even the disobedience of a prophet must be visited with its due recompense. This is precisely how the agitators argue against the Contagious Diseases Acts, against foundling asylums, and other measures to reduce the contingent social and personal effects and penalties of vice. It is no use trying to convince those who can find satisfaction in such reasoning.

We lay these facts and reasonings before the medical profession of the United States, that they may reflect seriously whether it is not their duty to speak out boldly in favor of similar measures in the large cities of our own country.

NOTES AND COMMENTS.

A Novel Attempt to Produce Abortion, with Fatal Results.

At a recent Surgical Clinic at the Pennsylvania Hospital, reported in the *Medical Bulletin* for August, 1881, Dr. R. J. Levis drew the attention of the class to a peculiar case of suicide, occurring in a pregnant woman, or, perhaps, the case might be better called an attempt at abortion. She was in the ninth month of her pregnancy, and for some paltry reason endeavored to kill the fetus, and so produce abortion by firing a pistol shot at the abdomen. The ball, instead of going into the womb, and killing the child, as she intended, entered the abdomen, near the margin of the seventh rib upon the left side.

The doctor was in the house when the woman was admitted, and saw that she could live but a short time. Upon examination, found that the beat of the fetal heart could be distinctly heard, showing that although the mother was in a dying condition, the child was still living. He remained in the ward some time, with a view of endeavoring to save the life of the child, by laying open

the abdomen and removing the fœtus the moment the woman should die, but she lingered along for some time, and he was compelled to leave the hospital before she perished. On leaving the house, however, he instructed the Resident to perform the Cæsarean operation immediately after the death of the patient, to prevent, if possible, the child dying with the mother. During the night, however, while the woman was really in a dying condition, labor came on, and she succeeded in delivering herself of a living male child. The labor was a rapid one, its duration being only eight minutes. The mother died almost immediately after the delivery of the child was accomplished. The babe lived but a short time. There was no wound upon any portion of the child's body, which clearly showed that the fœtus was not injured, as the mother had intended, but that she had really killed herself in the attempt to produce an abortion.

Nitrite of Amyl in Fatty Degeneration of the Heart.

When the existence of fatty degeneration has been clearly diagnosed, it is injudicious to administer digitalis, as it might, by producing contraction of the smaller vessels, so augment arterial tension as to cause arrest of the heart's action. Under these conditions it is better to look for a remedy which will call forth the vitality of the muscular fibres which are still normal, and thus to wait for a time more favorable for the administration of the heroic remedy. According to *Rivista Clin. di Bologna* for January, 1881, Dr. E. Kutz, of Florence, believes that such an agent is found in nitrite of amyl, which he has for some years been accustomed to use in various nervous, painful, and spasmodic affections.

When pain is due to some abnormal condition of the nervous system the nitrite of amyl almost always gives prompt relief; if there be inflammation of the tissues its action is much more uncertain. In hysteria and epilepsy it should not be employed. It is more especially in the condition of cardiac debility, and commencing paralysis of the heart, that the remedy is of value. It produces peripheral hyperemia, diminishes arterial tension, and at the same time causes the heart to contract. In support of his views the author cites the case of a patient who was restored from a condition of complete asystole by the inhalation of ten to twenty drops of the nitrite, till he was able to resume the taking of digitalis, from which, in its turn, he obtained benefit. The author thinks also that this remedy might prove useful in eclampsia and in most

spasmodic diseases; the only contra-indications which he recognizes are cerebral hyperæmia, plethora, and atheroma, on account of the danger of causing apoplexy.

Treatment of Various Forms of Insanity by the Hypodermic Injection of Morphia.

Dr. A. Voisin, of La Salpêtrière, in *Bull. Gén. de Théráp.*, 15th and 30th May, 1881, records twenty-seven new cases of insanity successfully treated by the above means, in addition to those published by him a few years ago. He lays much stress on the fact that this method permits of treatment being carried out at the patients' own homes; of the twenty-seven cases fifteen were so treated. Of these fifteen, twelve suffered from melancholia with hallucinations, three from hysterical mania; while of the twelve hospital cases eight suffered from melancholia with hallucinations, four from religious mania, "the variety of insanity recognized as being the most difficult to cure." The maximum doses most generally employed were five to eight centigrams ($\frac{3}{4}$ — $1\frac{1}{2}$ grains) per day, though in one case, sighing melancholia in a lady, a variety of melancholia considered nearly incurable, a maximum of sixty centigrams per day (9.2 grains) was reached. In all the cases a commencement was made with small doses (1 mgr.), which were gradually increased. The author commends this mode of treatment also on the ground that the physician has the assurance that the remedy ordered is properly taken, while the dose can be regulated with perfect exactness.

Boil Doubtful Milk.

It is with the following words that Dr. Pichon closes his account of the epizoötic of 1879 80:— Most authors are silent as to the quality of the milk yielded by cattle during the prevalence of epizoöties. It is possible that experience has not as yet supplied sufficient ground for its condemnation, and it is true that while a diminution of milk secretion is usually an early symptom in almost all diseases of the cow, complete suppression of that secretion accompanies any aggravation or prolongation of disease. The source of danger is thus removed by the operation of natural causes, and the discussion is narrowed to the question whether milk secreted at the very onset may not have acquired hurtful properties. In this state of uncertainty, which has not been cleared up by any authority on hygiene, the precaution of boiling the milk should be adopted. Boiling destroys any infective germs that it may contain.

Advice after Confinement.

Dr. J. Henry Bennett remarks, in a recent article: On taking leave of my patient, I say to the husband: "Your wife's confinement, being a natural function, ought to do her good. Two months after it she ought to feel at least as well, if not better, than before the pregnancy. She ought to walk and stand as well, to be properly menstruated, and to have no pains. If she do not attain this standard, send for me, and we will talk the matter over. During her confinement she may have received some internal injury, not appreciable at first, but easily recognizable later. Any such injury can easily be treated and cured a couple of months after a confinement. If, on the contrary, it be allowed to continue untreated for months or years, it will undermine her health; and when she is at last forced to apply for assistance, it will prove most difficult to cure." This advice was generally followed; and thus I save my own patients from the years of uterine suffering which often follow labors that appear, at the time, to be the most favorable, and in every sense satisfactory.

On the Indications for the Treatment of Naso-Pharyngeal Catarrh.

On this subject Dr. Andrew H. Smith expresses himself in the New York *Medical Record*, August 6th, 1881, as follows:—

First.—Keep the parts clean.

Second.—Remove all sources of irritation resulting from occupation, residence, climate, etc.

Third.—Exercise attention to hygiene and to the general health.

Fourth.—If there is obstruction to nasal breathing, remove the obstruction.

Fifth.—If there is ulceration, use strictly local applications, with a view to healing.

Sixth.—If there is hypertrophied glandular stricture, yielding excessive secretion, remove the hypertrophied portion.

Seventh.—If, after the above indications have been fulfilled, there is still hyperæmia, use mild astringents and sedatives, and such constitutional treatment as is thought to be indicated.

Eighth.—Cease treatment the moment there is no longer a definite indication for it.

Is Cancer Hereditary.

Professor Jonathan Hutchinson, says, in a recent lecture that the popular opinion to the effect that this distressing disease is always transmitted to the offspring of cancerous individuals is not supported by the conclusions arrived at by

those who, like Sir James Paget, Mr. Birkett, Mr. Morrant Baker, and others, have specially investigated this question. Indeed, it has been shown that only one out of every six cases is due to direct inheritance, and we should be led to anticipate this from the knowledge we possess that cancer (including under this head all forms of malignant new growth) is a disease of old age especially; and it has been already conclusively demonstrated that the more certainly transmissible complaints are such as occur in early life, those of advanced age being among the more rarely inherited forms.

Glycerine in Phthisis.

Prof. Jaccoud, of the Paris Faculty, has strongly recommended (*La Thérapeutique Contemporaine*) the use of glycerine as an excitant and agent d'épargne, during the non febrile period of common phthisis, when cod liver oil is no longer tolerated. He recommends the following mixture, which should be taken in the course of the day, either with or between meals:—

R.	Rum or cognac,	10 grams
	Ol. menth. pip.,	m.l
	Glycerin,	40 grams. M.

This mixture is agreeable to the taste and well tolerated by the stomach; even after several months, it induces neither satiety nor disgust. The quantity is sufficient for one day, but in cases which present no sign of abnormal excitability of the nervous system or heart, the dose of glycerine may be gradually raised to 50 or 60 grams per diem.

Treatment of Syphilitic Chancres.

In a recent memoir on the "Diagnosis, Prognosis, and Treatment of the Syphilitic Chancres," M. Mauriac, of the Ancient Hôpital des Veneriens, of Paris, arrives at the following results as regards treatment: Notwithstanding the authority of Sigmund, of Vieuna, cauterization is not approved; it will always be difficult to do it soon enough. As regards excision, which, according to Auspitz and Unna, Ch. Kolliker, etc., has arrested the progress of syphilis, even the first or second week after the chancre has appeared, this operation merits very little confidence. If the prepuce is long and narrow, and with difficulty drawn back over the glans, circumcision may be performed and the chancre and constricted prepuce removed at the same time.

M. Mauriac believes in using mercury in fair doses and for a considerable period.

Visceral Rheumatism.

At a meeting of the Academie de Médecine, M. Woillez read the report of a work by Colin, upon visceral rheumatism. Along with others, the author found that pleurisy of a rheumatic nature could be distinguished by a peculiar friction sound, having for seat the junction of the superior with the middle third of the axillary region. This symptom M. Colin considers as indicating an arthritic affection, although the patient may not have had previously any rheumatic trouble. The friction sound resembles the dry crepitation of the first stage of pulmonary tuberculosis, and is especially marked on the right side. The sign appears to him symptomatic of all pulmonary affections of an arthritic nature.

SPECIAL REPORTS.**NO. XV.—DERMATOLOGY.**

(Concluded from page 220).

Pityriasis Capitis.

For this common and frequent affection we quote the treatment adopted by Prof. OSCAR SIMON, of Breslau (*Allg. Med. Cent. Zeitung*, June, 1881). He praises the local application of *chloral hydrate* :—

R. Chloral hydrat,	gr. xxv
Glycerinæ,	ʒ j
Aqua,	ʒ j. M.

To be rubbed into the scalp once or twice daily with a soft sponge.

In obstinate cases, half a grain to a grain of corrosive sublimate may be added to the above.

Prof. SIMON very pointedly warns patients with this complaint against using harsh brushes, especially the American wire brushes, and all violent rubbing and scratching with fine tooth combs. All these procedures, he adds, are poisonous to the scalp. The head may be washed from time to time with glycerine soap, or, if a more positive agent is needed, with a tincture of green soap (*spiritus saponis alkalinus*). If the case remains refractory he has recourse to

R. Olei rusci.	gr. xl-1
Alcoholis ॥	ʒ j. M.

which effectually prevents the formation of scales. As a useful ointment to prevent the return of the disease may be employed :—

R. Bismuth subnit.,	gr. xl-1
Hydrarg. præcip. alb.,	ʒ j.
Ungent. petrolei,	ʒ j.

Used from time to time as required.

Prurigo.

The *Centralblatt für Chirurgie*, No. 9, 1881, states that Prof. NEUMANN, of Vienna, holds that while recovery from true prurigo is extremely

rare in adults, it is not uncommon in children. To obtain this result treatment must be begun early and continued unremittingly; the itching being lessened or removed the secondary changes (infiltration of the skin, desquamation, the formation of fissures, swelling of glands) may be prevented, and a cure may be obtained, often after ten or twelve years' treatment; even then relapses are apt to occur. As regards remedies, NEUMANN recommends the hypodermic injection of *hydrochlorate of pilocarpine*, wet packing, and vapor baths, to induce profuse perspiration. The author incidentally remarks that in cases of alopecia areata pilocarpine had no effect on the growth of the hair.

Prof. OSCAR SIMON (*Allg. Med. Cent. Zeitung*, May, 1881) emphasizes the diagnostic points that true prurigo is found on the extensor surface of the limbs, and not in the flexures of the joints; that prurigo buboes in the crural region are rarely absent, and that it dates from childhood. He has also found positive benefit from jaborandi and pilocarpine. He uses daily an injection of one gram of a one per cent. solution of pilocarpine. The patient is then covered with blankets and allowed to sweat one or two hours. A syrup of jaborandi, prepared from the leaves, may also be administered. The cure lasts three or four weeks. In addition to the pilocarpine, the patient may be painted with cade oil and put in a warm bath for a couple of hours. This may be carried out in the afternoon.

Psoriasis.

The treatment of Prof. GUIBOUT, of Paris, is, internally, *aerseniate of soda* in solution or pill, continued for several months; and locally pyrogallic acid and oil cade.

R. Olei cadini.	gr. xl-1
Adipis,	ʒ j. M.

Rub in twice a day, the skin being washed with warm water and soap every two days.

But oil of cade is a better application; it is rubbed in, pure and simple, twice a day, the skin being bathed every two days with a strong solution of bicarbonate of soda.

Very obstinate cases of psoriasis were treated by Dr. VOSS, of Pesth, by baths containing in solution *corrosive sublimate* (*Bull. de Thérapeutique*, March). The number of baths required varies from thirty-two to forty-eight. The baths should be taken every day, at a temperature of 27° to 29° C., the patient remaining immersed 30-40 minutes. The strength of the solution forming the bath is not indicated here. Neither salivation nor any accident of that nature was observed. This system of treatment commends

itself on account of the shortness of its duration, the ease with which it can be carried out, and its pleasantness, the remedy employed being neither evil smelling nor such as will stain the skin or clothing.

- The *Union Médicale* states that Dr. PREISSMAN uses *salicylic acid*.

R. Acidi salicylici, gr. xxx
Alcoholis, ʒj. M.

Wet a soft sponge with this and rub gently the diseased parts; the scales will soon become detached, after which an appropriate ointment may be applied.

A writer in the *British Medical Journal*, June, gives an example of his plan of treating obstinate psoriasis:—

I cured a most inveterate case that came under my care, after having been getting worse and worse under various treatments at the hospital. The sufferer was literally covered, from her chin to her instep. I began by giving three grains of potassa sulphurata, and three minimis of liquor potassae arsenitis, in an ounce of water, three times a day; and as I found it borne well, increased the dose of potassa sulphurata to eight grains and the arsenic to ten minimis; and had the satisfaction of seeing the case perfectly cured in a few months. Two years afterwards she had a relapse; but by taking it in time, it was soon cured, and this spring she again came with it out rather fully; and again, in two or three weeks, it was cured.

Dr. THIN (*Lancet*, April, 1881) has successfully treated cases of psoriasis by the application of a solution of *pyrogallic acid* of the strength of one in twenty. Dr. THIN believes that the curative action of pyrogallic acid is due simply to its irritant qualities and to certain properties as an irritant, in regard to which we are at present ignorant. The irritant effects are most conspicuous around the hairs, each hair being the seat of a small brown patch, which, when it is scratched off, often leaves an abrasion in its place. Dr. THIN concludes that pyrogallic acid is a remedy to be cautiously handled, but that when used in the strength above indicated, and over a small extent of surface at a time, it can be employed not only safely, but conveniently and successfully. The utility of pyrogallic acid in psoriasis has also been supported by the testimony of KAPOSI, who has warmly recommended it, more especially in cases of psoriasis universalis.

It is however far from an entirely safe agent. An account is given by Dr. A. NEISER, in a recent number of the *Annales d'Hygiène Publique*, of poisoning by an ointment containing pyrogallic acid:—

A man of strong constitution was admitted into the dermatological ward of the Breslau Hospital, suffering from general psoriasis. He was treated by frictions with chrysarobin (in the form of an ointment of alcoholic extract of rhubarb, containing 1-20th) on one-half of the body, while the other half was treated in the same manner by an ointment containing ten per cent of pyrogallic acid. Six hours after the application the patient had violent shivering with vomiting and intense collapse. He then recovered somewhat, but the symptoms reappeared in forty hours. Death occurred on the fourth day after the application of the ointments, preceded by coma and a very low temperature. Experiments undertaken at once on rabbits proved that this catastrophe was due entirely to the pyrogallic acid ointment, and that the chrysarobin was entirely innocuous. The pyrogallic acid acts by its extreme avidity for oxygen when in contact with alkaline fluids. The patient during the whole time he was at the hospital produced very little urine. The last quantity voided was dark brown and very thick; it contained no blood corpuscles, but a considerable amount of haemoglobin, which was recognized by means of the absorption-bands it gives in the spectroscope. Post-mortem examination showed that the blood had a dirty brownish-red tint, and contained an abundance of détritus of red corpuscles. The kidneys were uniformly bluish black. In some of the experiments on rabbits the animal died within two hours.

The use of *chrysophanic acid* in psoriasis has been less extensive than was anticipated, owing to its irritant action. It has, however, very good results at times. Dr. CHARTERIS, of Glasgow, has found that if applied to one side of the body only, it will often effect a complete cure of both sides. Such a case is recorded in the *Glasgow Medical Journal* for July. A boy of nine years had psoriasis of the whole body and scalp.

Dr. CHARTERIS ordered the patient to be treated with chrysophanic acid ointment (grs. 40-ʒj.), which was to be applied in the following manner: One ounce to be rubbed on the left side and on the left arm and leg, the side to be covered by a broad bandage, fixed on by tapes carried round the right side, and the left arm and leg to be bandaged and protected further by a sort of sleeve. The right half of the body not to be interfered with in any way. By 11th May the itching had disappeared. May 18th. The scales are entirely rubbed off the left side, and seem to be looser on the right side. May 20th. There is some slight desquamation in the left axilla, and the eruption has left the arm. On the body there is a great improvement. May 23d. There are only a few discolourations noticeable on the right leg. The ointment is to be stopped and a bread poultice applied to the remaining spots; this is to be followed up with a bath. May 26th. The eruption has now left the patient entirely. He has been under treatment fifteen days, and during that time none of the ointment has been allowed to get on the sheets or in contact with the right side of the body.

This curious result shows that the acid is absorbed and acts through the system generally.

Rosacea.

Prof. SIMON, of Breslau, is convinced that for most cases of rosacea there is but one means worth resorting to, and that is to slit up the swelling, so as to relieve the enlarged capillaries. If this is done skillfully little or no pain attends the operation, and the ugly redness disappears. No caustic is needed, and the hemorrhage in most cases is slight, and beneficial rather than otherwise. As in men this disease has its origin generally in some form of dyspepsia, and in women either in stomach or uterine complaints, these conditions should receive proper attention. The circulation should further be stimulated by local bathing with alcoholic washes, or painting with a weak sublimate wash, as

R. Hydarg. chlor. corrosiv., gr. ss-j
Aque destillatae, ʒj. M.

Carbolic Acid in Scabies.

As the result of experiments by M. FRISSART, at Saint Louis Hospital, Paris (*La Presse Médicale Belge*), it appears that carbolic acid may be employed with advantage in the treatment of scabies. Two patients were cured of the affection by friction twice a day with the following mixture:—

R. Acid. carbolic. cryst., gr. xliv
Oil. amygdal. dulcis, ʒx. M.

Dr. FRISSART was led to make these experiments by noticing the disappearance of scabies in several patients affected with it who had been put under Lister's treatment for some surgical affections.

Urticaria.

The remarkable sensitiveness of the skin in those subject to urticaria is well illustrated in a case reported from the Charing Cross Hospital by Dr. SANGSTER (*Medical Times and Gazette*, June 25th):—

E. B., aged sixteen, female. For the last ten years it has been noticed by the patient's mother that trifling mechanical irritation causes the skin to rise up in wheals; this was not remarked during infancy. No medicines or food causes the wheals to appear, nor do they ever come spontaneously. After drawing a blunt-pointed pencil (using moderate pressure) across the skin once, within two minutes there appeared a hyperemic surface, extending more than half an inch on either side of the pencil-mark, which became the seat of an elongated pale wheal. An ordinary clinical thermometer, after being held against the normal skin for some time, until it ceased to rise, at once went up 3° on being held against the hyperemic surface. There was no other abnormal condition of the skin present. The extremely

irritable condition of the vasomotor system, giving rise to the ready production of wheals from slight mechanical irritation, seems to be present in some individuals during the whole or a considerable part of a lifetime. It may be supposed that these extreme degrees of irritability of the vasomotor system (and the degree must vary in each individual) play an important part in the sum of causation of skin affections. The condition giving rise to "factitious" urticaria is undoubtedly, in some instances, temporarily induced by causes which give rise to scratching. Dr. LIVEING notices this. He says: "Urticaria is extremely liable to complicate other irritable affections of the skin, such as scabies and pytiris." In these conditions the extreme irritability of the vasomotor system is probably due to exhaustion; the system is exhausted by continued stimulation, and therefore unduly mobile.

In regard to the treatment of this disease, in the *Bull. de Thérapeutique*, April, 1881, Dr. CATRIN reports three cases of urticaria treated with considerable success by *atropine* in pill. His formula is the following:—

R. Atropin.,	10 milligrams.
Glycerini,	2 grams.
Aq. dest.,	2 "
Pulv. gum. trag., q. s.	M.

SIG.—Make ten pills: one morning and evening.

The good effects of atropine in urticaria are attributed to its influence on the vasomotor nerves, its action being analogous to that by which it controls the night-sweats in phthisis.

A curious instance of *urticaria tuberosa* was lately related to the Royal Medical and Chirurgical Society of London, by Mr. W. M. BAKER:—

The general symptoms from which the patient suffered were those of factitious urticaria, to which were added those of so-called urticaria tuberosa. The most peculiar feature of the case, however, and one which, in the author's experience, was unique, was the presence of persistent, yellowish-red tubercles in various parts of the body, which proceeded to ulceration; the parts most affected being the knuckles, elbows and ears. These tubercles were said to have begun in a manner similar to that which characterized the onset of the evanescent urticaria wheals and tubercles. The patient's general health was good, and he had not suffered from syphilis or other serious malady. Under the influence of treatment as an in-patient, the disease became rapidly better, but soon relapsed when the patient left the hospital. The author considered briefly the doubtful relationship of the disease to others less rare, which in some respects resembled it; and came to the conclusion that the case was one of so called urticaria tuberosa.

Muriate of Iron in Chronic Diseases of the Skin.

Dr. CASSARINI has collected a certain number of observations of chronic disease of the skin, in which the external employment of the muriate of iron had been of incontestable utility. He

employed the dose of thirty or forty drops, in the form of lotions or mixed lard, as an ointment. The diseases of the skin in which this agent appeared to be the most efficacious are subacute and chronic psoriasis, eczematous lichen, and in eczema when all inflammation had disappeared.

The conclusions of the author are as follows:—

1st. Perchloride of iron is the most active remedy against purpura hemorrhagica and simple purpura.

2d. It is very useful against the cachectic chloranæmic state which frequently accompanies certain diseases of the skin, rhypia, ecchymosis, and impetigo.

3d. Externally it exercises a prompt and favorable action in scrofulous and syphilitic ulcers (constitutional syphilis).

4th. Employed as a pomade, perchloride of iron is an energetic remedy against squamous affections of the skin, notably psoriasis.

Iodoform in Skin Diseases.

The following formula is in use at University College Hospital, London:—

R. Iodoformi,	gr. x
Olei eucalypti,	$\frac{2}{3}$ j.
Unguent. petrolei,	$\frac{2}{3}$ j.

M.

Dr. H. CROCKER says of it (*Brit. Med. Jour.*, May 28).

I have used the iodoform without the eucalyptus with success in some cases of subacute eczema, mainly on the back of the hands and forearms; in suitable cases, the result was often very rapid. I have now a boy under my care with eczema of the head, in which there was a profuse sero-purulent discharge, which became offensive in a short time; to this, an ointment, with ten grains of iodoform to the ounce of lard, was applied, speedily removing all fetor, and reducing the discharge to serous only. It was, however, rather too stimulating at this stage to be continued long. Its penetrating and disagreeable odor necessarily limits its employment, though the oil of eucalyptus partially obviates this, besides increasing the solubility of the iodoform. It is slightly stimulant as well as antiseptic, and must therefore, be restricted to cases requiring some stimulation. I can well believe that it would be efficacious in impetigo contagiosa, by destroying the micro-organism on which the inocuity of the disease probably depends; but the less unpleasant ammoniated mercury ointment will be preferred by most, as it is so very efficient.

Cutaneous Lesions of Nervous Origin.

At a recent meeting of the Société de Biologie, May 7th, MM. LELOIR and DEJERINE presented a patient affected with a malady which must be rare, for it is nowhere described. A young girl of a family having several members affected with nervous diseases had, without any apparent

cause, several patches of superficial gangrene developed on the cheeks; the small eschars were soon eliminated, leaving a linear cicatrix, which gradually became transformed into cheloid elevations. This first happened three years since, and during this period she has suffered from several similar lesions on the trunk and arms. The lesion commences on the skin, by a sensation of pricking, with slight redness and notable diminution of sensibility at this point; in nine hours a white patch, not preceded by phlyctenula, is formed and undergoes, after a short time, superficial gangrene. Later the spot becomes brownish, detached at the edges, and is finally eliminated, leaving an ulceration and a cicatrix, the anaesthesia which existed around the part finally disappearing.

Every fortnight a new series of patches appears; for the past three weeks M. VULPIAN has administered atropia and chloride of gold, and there seems to be some amelioration.

M. PONCET was of opinion that this was a case of leprosy, resembling those proteiform cases to which M. BAZIN has given the designation leproid; the abnormal fact in this case would be the return of sensibility around the cicatrices.

CORRESPONDENCE.

Carbolic Acid in Hemorrhoids.

ED. MED. AND SURG. REPORTER:—

In the number of your journal bearing date July 23d, 1881, I find an article signed G. LAW, M.D., inveighing against the use of carbolic acid injections in treating hemorrhoids. The writer condemns the whole process from the results attained in only one case, and that one not suited to the operation. The tumors, as he found them, very small, "soft, exceedingly tender, protruding from the anal orifice," were not such as I would have felt warranted in operating upon at all for some time. The first step, in such a case, ought to have been to have subdued the inflammation, which at that time had certainly passed the reparative degree and was tending rapidly to that of suppuration. The teaching of all authorities, in such cases, is to first deplete and subdue the local inflammation by leeching, poultices, emollient injections, etc.; then, when the active stage of the inflammation is passed, to select that mode of operation best suited to each individual case. It is not claimed for the operation of injection, by its advocates, that all hemorrhoids are curable by it. Only internal tumors should be treated with it, and only such internal ones as are in a proper condition for the injection. From the result of the operation in the case of the second tumor by him injected, I am inclined to think that the hemorrhoids were partly external and partly internal; and, if so, only suited to the knife or scissors. Had the tumor been entirely internal, and as small as reported

by Dr. Law, I can see no reason why it could not have been returned; but, if partly external; then the failure to return can be easily accounted for. Now, if Dr. Law failed in a case unsuited to the operation, he ought not to condemn the operation itself but some one or some thing else. It is a maxim of surgery that the only operation for an external hemorrhoid is excision—not injection or ligation. In my experience in the treatment of hemorrhoids, I once saw an external tumor that had been ligated which came near causing the death of the patient; so, too, can I conceive that the injection of carbolic acid into an external hemorrhoid, or one only partially so, may cause intense pain, lasting for hours, and "necessitating a hypoderm of morphia." Furthermore, where the internal tumors are small, it is very easy to inject the solution too deeply, and no good results follow. In such cases the coats of the bowel can easily be perforated. Then, again, a fifty per cent. solution of carbolic acid is hardly strong enough to be used with safety. Weak solutions are more often followed by suppuration than the stronger ones. The first effect of the injection being coagulation, the more rapidly this takes place the safer, as the danger from absorption of the acid then becomes almost nil. Suppuration follows only in just such cases as that reported by Dr. Law.

In the cases in which I have resorted to the carbolic acid treatment, I have not hesitated to inject all of the tumors at one time, but this would not be a safe rule to follow in all cases. The cases were chronic and long standing ones, of strictly internal tumors. One of them reported his trouble of thirty years' duration. The result in every case has been a perfect cure. The first case I operated on by this method was three or more years ago, and from a daily observation of the patient I know the result to be all that could be desired. Another case, after a year's test, reports himself "as well as he ever was in his life," and so for the other. In no case was there suppuration; in no case was chloroform, or any other anesthetic used, and in no case was much pain produced. The general complaint was, that at the moment of operation a sensation similar to that of a bee-sting was produced. In only one case did I have to administer an opiate, except to keep the bowels from moving for a few days. Can the advocates of ligation show any such results? Have there been no deaths from such operations as ligation and excision? I answer the latter question affirmatively, but not in my own practice. I have seen such results follow. One great trouble with surgical practice is that "dead men tell no tales," and surgeons do not report fatal cases. Could all fatal cases be collected, resulting from ligation or excision, the number would, I doubt not, be large. After ligation a strangulated mass is returned into the rectum, there to remain and slough off, the system being in danger from septic poisoning during the progress of sloughing, and then from secondary hemorrhage, and then from a slow healing, and occasionally a never-healing, ulcer. The danger from septicæmia is far greater than any imaginary danger from carbolic acid poisoning, as no absorption takes place when used in proper

strength. There is, and can be, no danger from secondary hemorrhage, and you have no slow healing ulcers, except in such cases as Dr. Law reports.

One further criticism. From the progress of the Doctor's case, I am inclined to the belief that carbolic acid was injected, not alone into the tumor, but into the surrounding tissue also, and hence the deep-seated pain "and uneasiness about the anus," and the gloomy "image of a possible rectal fistula to follow." If, as one would infer from the article, Dr. Law operated on the rectal fistula as soon as it fully revealed itself to him, an image of a probably sloughy condition of the wound, and one that will heal with great difficulty, may yet loom up before him. Upon the whole, it is hardly fair to condemn an operation because of one failure, where hundreds of successes have been reported.

Trenton, Tenn. T. J. HAPPEL, M.D.

Ice in the Treatment of Typhlitis.

ED. MED. AND SURG. REPORTER:—

Dr. T. Curtis Smith has given a very valuable paper on this subject, in the MEDICAL AND SURGICAL REPORTER of July 30th, and as I regard everything that he writes as worthy of careful reading, and as being greatly instructive in *practice*, I desire now only to suggest to him and to those who have read his valuable paper a remedy which will not only obviate the necessity for his blister, but which, besides its great efficacy in reducing the local inflammation—which in this case is the whole disease—is so grateful to the patient during its action. I need not refer here to the symptoms of this disease; its progress, its dangers and terminations. These have all been well given by Dr. Smith.

Many years ago I had a young friend ill with this disease, and under my care he died. It gave me unutterable sorrow, and when, a few years after, I was called to a boy eleven years old, suffering greatly, lying on his back with his legs drawn up, and a large, firm lump occupying the region of the ileo-colic valve, I had a heavier rigor than those which have so alarmed President Garfield's physicians. The sad case of my young friend was before me, and what I had done for him had failed of its purpose. I concluded to call to my aid my brother, Dr. William Corson, and together we considered the case. Without caring about the name of the disease, but regarding the swelling, tenderness, and pain, and their location, we agreed that there was an inflammation—a very severe one, too—at or about the junction of the large and small intestines, and if we could not arrest that inflammation our patient would likely die, as mine had done, after sloughing of the bowels and discharge of their contents externally through the muscles of the side, or back. Leeches were suggested, but we had both seen the wonderful effects produced by covering the inflamed, tympanic belly of a puerperal woman, suffering from peritonitis, with snow, and continuing it there for two days. It gave her almost immediate relief, with steady, regular abatement of suffering, until out of danger. The inquiry then was, "Why not use

it here?" Though we had not known it used in such a case, we at once got a large bladder, filled it half full of ice, with water enough to have it rest like a cushion over the inflamed and suffering part, gave opium; to allay pain, and left him. Next day found him better; not so sore; not so much pain; no extra heat that we could feel; the tumor smaller; the patient not restless, but comfortable with his ice cushion. In a few days the boy was well. Since that time—a quarter of a century ago—in all inflammations of the belly, I have resorted to it. In erysipelas, when so prevalent in Norristown, many years ago, it was a soothing, efficient remedy when the disease spread over the back, belly, or side, as the case proved to be. Recently, in fevers—typhoid, and other, I have used the cold with great comfort and advantage to the patient. Only three weeks since I kept the belly of a boy of ten years, covered with towels wrung out of ice water and changed every fifteen minutes for several days, with comfort to the little fellow. A month since, I used the same remedy, in the same way, in a boy of eleven years, ill with pneumonia. After a week, when he was well, I asked him how the cold applications affected him. He replied: "It felt very cold the first time, but after that it was very pleasant; it cooled me off so well; my side was so hot before."

I seem to have wandered from the subject treated by Dr. Smith, but I desire to encourage others to make use of cold water, or ice, instead of whisky and large doses of quinine, when they desire to reduce the heat of a part, or the whole of the body. If, hereafter, he will, in his cases of typhilitis, and all other acute inflammations of the abdominal organs, apply ice over the affected part freely and continuously, he will need but few if any of her remedies than opium.

Conshohocken, Pa. HIRAM CORSON, M.D.

Pharyngeal Inflammation.

ED. MED. AND SURG. REPORTER:—

I ask a place in your Correspondence for the following history of one of my patients:—

N. E., wt. 28, married ten years, has had three children; been troubled with attacks of sore throat ever since she was a girl; is anaemic; menstruates about every five weeks, flow lasts never less than six days, and is so painful that she has to keep her bed the first day or two. This woman came to me to be treated for her throat trouble. She says her throat gets dry, and at times she brings up small lumps about the size of a pea, looking like inspissated mucus, and that afterwards her throat feels better. I examined one of these lumps, and it appears to be the dried secretion from one of the follicles in the pharynx. Upon inspecting the pharynx, I find the parts relaxed, not congested, tonsils slightly enlarged, and little pits on each side of the pharynx, one of which is the shape and size of the little lump the woman gave me for my inspection. Those pits do not look as though they were the results of inflammation or had been made by the disorganization of the tissue which may have formerly occupied their place; the pits appear to be covered or lined by a continuation of the same membrane that

lines the rest of the pharynx, and there is no evidence of active inflammation about them. Those pits or depressions look as though they might have been made by a gouge or sharp instrument, only that there is no evidence of violence about them. What is particularly curious about this case is her loss of sexual appetite, which is a source of unhappiness in her married relations. The prescription that did her the most good is:—

R. Dialysed iron, $\frac{3}{2}$ j.
Glycerine, $\frac{3}{2}$ ij. M.

SIG.—Take a teaspoonful three times daily.

Her throat gave her less trouble while taking this than any other. Now the inquiry that most interest me is, first, whether the follicular ulceration of the pharynx or the anaemia, together or separately, had anything to do with her loss of sexual appetite; and, second, what remedies are best adapted to relieve both difficulties? I would like to have an opinion from the profession on these questions, and some of their experiences with such cases. I do not think the sexual complication in those cases should be ignored. Such sexual disparities as the above are, I verily believe, the source of more than half the domestic infelicities that afflict the human family in civilized society.

E. H. N.

[The case is no doubt one of chronic follicular pharyngeal inflammation. The relation not unfrequently observed between diseases of the throat and the sexual powers has been commented upon at some length by Acton, in his work on the *Reproductive Organs*, and Napheys, in his *Transmission of Life*. Local applications of glycerate of tannin and general tonic measures usually relieve such cases. A month or two at a sulphur spring is a most excellent adjuvant.—ED. REPORTER.]

Hemorrhage from the Bowels in Typhoid Fever.

ED. MED. AND SURG. REPORTER:—

This is not in the strict sense of the word a hemorrhage, that is, "a breaking forth of blood as from an aneurism;" but a simple transudation, in most cases, from want of tone in the tissues, in consequence of which the blood leaks away after the manner of a transudation through a flannel cloth. Of course, there are cases arising from ulcerative destruction of the coats of vessels; but I apprehend these cases are rare, in comparison with those due to the former cause. But it is my object simply to give the method of treatment that I have found most satisfactory. As I derived it, many years ago, from an old practitioner, of local eminence, and have never seen it referred to in any book or medical periodical, I conclude that it may have originated with the physician referred to, and is not as widely known as its merits would justify.

This consists simply in the use of lime water and Peruvian bark, as follows:—

R. Peruvian bark (best), pow'd, $\frac{3}{2}$ j.
Aqua calcis, Oij. M.

Put the powdered bark into a quart bottle, fill it with lime water, shake it until thoroughly mixed, and throw into the bowels by one injection, Oj. Direct the patient to retain this, which he will frequently do for twelve hours; when it should be at once repeated. At the same time administer by the mouth a tablespoonful of the same mixture every two or three hours. This should be kept up until the bleeding is thoroughly arrested. T. M. HARRIS.

Ritchie C. H., W. Va.

Plan for Probing for Bullets.

ED. MED. AND SURG. REPORTER:—

There seems to be so much perplexity with regard to "locating the ball," in the President's case, that I am tempted to give a method which I have practiced, upon occasion, during the last fifteen years. It may not be new, but if it is not, I confess my ignorance when I state that I have not seen the method anywhere alluded to. You have reason to suspect the presence of the ball at or near a certain spot, but are unable to demonstrate, by any of the ordinary modes of search, that you are correct. Take a long, slender, steel needle, about the calibre of a number 4 or 5 sewing needle, fix it firmly in the end of a slender handle, say about the length and size of an ordinary pen holder or staff. You now have a "probe" with which you can with great delicacy distinguish between the touch of flesh, bone and lead, or other foreign substance. To distinguish between *bone* (healthy bone) and *lead*, however, requires a little practice.

The manner of using this improvised "probe" (I have usually constructed it of a common sewing needle) is to pass it vertically down through the tissues over the spot where the ball is supposed to be. If the operator be possessed of ordinary skill he will readily perceive when the point of the needle comes in contact with the leaden substance. It will be seen at once that the wound inflicted by the needle is too small to do any serious damage, even though it should pass through tissues of great delicacy, and that it can be used where all ordinary methods of search would be unavailing.

My first use of it was to find a ball in the neck, behind the subclavian artery and vein, and the brachial plexus, lying on the posterior scalenus muscle. I have used it in other situations of delicacy with satisfaction to myself and benefit to my patients.

Prof. Bell may be able to attach this contrivance to his electric apparatus in such a way as to effect better results than either would do alone.

Trenton, Tenn. J. P. McGEE, M.D.

NEWS AND MISCELLANY.

Statistics of Medical Literature.

At the International Medical Conference, in London, Dr. J. S. Billings, of Washington, D. C., read a paper upon medical literature, with especial reference to its character and distribution. The paper opens with the following statistics:—

It is usual to estimate that about one-thirtieth of the world's literature belongs to medicine and allied sciences. The number of volumes is computed to be about 120,000, and about twice that number of pamphlets, and this amount is increasing at the rate of about 1500 volumes and 2500 pamphlets annually. Out of the 180,000 medical men in the civilized world about 11,600 are producers of or contributors to this literature. These are divided among the different countries as follows:—

	Number of physicians.	Number of medical writers.
United States.....	65,000	2,800
France and colonies.....	26,000	2,600
German empire.....	32,000	2,300
Great Britain and colonies	35,000	2,000
Italy	10,000	600
Spain	5,000	300
All others.....	17,000	1,000

The number of physicians who are writers is proportionally greatest in France and least in the United States. In 1879 the total number of medical books and pamphlets published was 1643, according to the *Index Medicus*. Of these France published more than any other country, the contributions of the United States ranking third. The special characteristics of the medical literature of the present day are largely due to journals and transactions of societies. These form about one half of the current medical literature, and are by far the most widely read and studied. They amounted in 1879 to 656 volumes, containing about 20,000 original articles which were judged worthy of notice in the *Index Medicus*. Classifying the literary product of 1879 by subjects, we find the scientific or biological side of medicine represented by 167 books and 1543 articles. In this branch Germany leads, while the United States is very low in the list. The practical side of medicine was represented by 1200 books and 18,000 articles. Here France showed the greatest production, the United States next, and then Germany. In scientific medicine we go to Germany to school, as that country at present leads the world. It was not long ago that the scientific student of medicine found his career anything but a profitable one. This condition is, however, rapidly changing, with the increasing specialization of his profession, and with the general tendency of science toward achieving practical results. So vast is the present range of medical science that we must now look, for original discoveries, mainly to specialists.

The Hungarian Sleeper.

John Gyumere, the Hungarian who was in a trance continuously for 169 days in the Lehigh county poorhouse, has for the first time sufficiently rallied to give the story of his life and experiences. He was first found insensible at a neighboring inn, whence he was removed to the county almshouse. This was over six months ago. On the 22d of April he opened his eyes for the first time and kept them open for four days. He did not speak, but remained in a dazed condition. April 28, he either fell or jumped out of the hospital window, falling a distance of twenty-five feet, but was not seriously

injured. April 26, he again closed his eyes, and did not open them until May 20, when he spoke two words after a flower had been held to his nose. Six hours afterwards he closed his eyes and kept them shut until a few evenings ago, when, upon being hailed by a Polander, in Slavonic, he opened his eyes, raised himself up, and in the same tongue replied, stating that he arrived in America about two years ago and went to Virginia, where he was employed by a man named Porter, near Charlottesville. He complains that a negro woman there put red pepper in his coffee, and many rough jokes were played on him, wherefore he fled from that part of the country and went to Baltimore, and then wandered into Pennsylvania. He remembers nothing from the time he fell asleep, until about four weeks ago, when he began to realize that he existed. It was as if he had been sleeping very long. When he awoke partially, he thought he was in a jail. He now feels very weak, but wants to go to work again as soon as he is strong enough.

During his trance he has been examined by a large number of physicians. This is a remarkable case, and, as far as we know, without precedent.

Legal Liabilities of Hospitals.

The New York *Medical Journal* states that the Rhode Island Hospital was sued by a paying patient, to recover damages for a dangerous hemorrhage, which he attributed to unskillful treatment by a surgical *intern*, who assumed to treat a wound beyond his skill, instead of sending for the attending surgeon, as he should have done. The results were gangrene and amputation. The suit gave rise to a statement of the legal rules governing the responsibility of an incorporated hospital for its medical attendants. These two are declared: 1. A hospital is not exempt from liability for unskillfulness or neglect, but is responsible for the exercise of reasonable care by the governing authorities in selecting physicians, surgeons, and *internes*, and, if incompetent persons are appointed, is responsible for the results of their neglect or want of skill. 2. If the rules of the hospital require that in specified cases an *intern* shall summon an attending surgeon, and the *intern* fails to do so, the corporation may be liable for the consequences of his neglect.

How to Get Material for Dissection.

In one of our Southern Medical Schools there was, some years ago, during one of the lecture terms, quite a scarcity in material for dissection. Paupers who died in the city Hospital were usually turned over to the demonstrator of anatomy, but for several weeks no deaths occurred. One of the students at last suggested that, in order to remedy this evil, the Demonstrator of Anatomy be appointed physician to the hospital.

The Relation of Salary to Skill.

The city of New York pays a pilot at the Quarantine station \$90 per month, an assistant physician \$50, and a fireman \$40. The *Medical Record*, commenting on this, says that, judging the capabilities of those employees by their salaries,

a man sick on shipboard does about as well to get a prescription from the Quarantine fireman as from a Quarantine physician, and he is in rare luck if he can be attended by the pilot.

The real cause of this difference in salaries is not far to seek. It takes a man with clear head and sound judgment about seven years of constant training to become a pilot, while a dunce may become a doctor by attending two courses of lectures of four months each (missing three-fourths of these), a period far too short to even become a passable fireman.

Bullfrog Ointment.

We had supposed, says the *Pacific Medical and Surgical Journal*, that the ancient and venerable "Bufo," which performed such good service in the therapeutics of olden time, was quietly laid away in the tomb. But it seems not. A practitioner in Alameda county, on his visit to a patient, found at the bedside a jar of something he was informed was "Bullfrog Ointment." Enquiring how it was made, he was informed that he must take a pint of milk and boil it, and then throw into it the living bullfrog and boil it to a paste, throwing out the bones. Thus prepared, it is "the best thing in the world for sore breasts," for which purpose the patient was using it.

The President's Condition

Has continued to give grave anxiety to his attendants. A certain amount of pyæmia, even though slight, developing in a patient already greatly reduced, is always a most serious complication. To this was added unusual irritability of the stomach, partly attributable, no doubt, as Dr. Baxter observed, to a tendency to chronic dyspepsia, which had for years been present in President Garfield. The suppuration of the parotid is another unpleasant complication, and indicates a low condition of the system. Although at the time of writing this the reports are more favorable, it will be some time yet before he can be considered free from considerable danger.

OBITUARY NOTICES.

Harry F. Sterling, M.D., formerly of this city, and a member of the Class of '77' at the Jefferson Medical College Hospital, died suddenly, of typhoid fever, at Pittsburg, August 10th.

He was a young man of rare genius, and embodied in his character all the qualities requisite for making his mark in the profession which he chose to live and die for. His success was assured, and while hard at work, weighted with extra professional cares, he sank, prostrated by the hot weather, and died, after an illness of but ten days. He had been resident physician to the Howard Hospital, of this city, and assistant to several of the Departments of the Jefferson Medical College Hospital. He was the son of the late R. B. Sterling, Esq., of this city, and only last November married Louise B., second daughter of Chas. C. Haffelfinger, Esq., also of this city. Dr. S. was much beloved by his associates, and his untimely death cast a gloom over the summer holiday of many of his friends.